

Review of the Numbering Conditions of Use and Application Process

Response to Consultation 21/28, Decision and Further Consultation

Response to Consultation, Decision and Further Consultation

 Reference:
 ComReg 21/75 and D06/21

 Date:
 19/07/2021

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Additional Information

Consultation	21/28
Numbering Conditions of Use and	15/136R3
Application Process	
Submissions to Consultation 21/28	21/75s

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1 Introduction

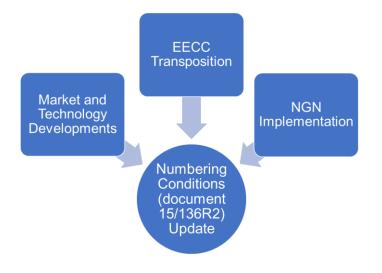
- 1 The Commission for Communications Regulation ("ComReg") periodically reviews and updates the Numbering Conditions of Use and Applications Process document ("Numbering Conditions") approximately every 2 years. The last review and update was undertaken in 2019. The purpose of this update is to address any issues that have arisen since the last update in 2019, by proposing new or amended conditions of use, and also to make any necessary administrative amendments, as appropriate. In March 2021, ComReg consulted on updating the Numbering Conditions of Use and Application Process ("Consultation 21/28")¹. This Response to Consultation describes the submissions to Consultation 21/28 and sets out ComReg's assessment of same, its final positions, and its final decisions. This document also includes an Amending Decision Instrument and a further consultation on a discrete numbering issue that has arisen in response to Consultation 21/28.
- 2 There were 12 respondents to Consultation 21/28:
 - Alternative Operators in the Communications Market (ALTO)
 - BT Communications Ireland (BT)
 - Commission for Regulation of Utilities (CRU)
 - eir Group (Eir)²
 - Gas Networks Ireland (GNI)
 - Health Service Executive (HSE)
 - Office of the Government Chief Information Officer (OGCIO)
 - Tesco Mobile (Tesco Mobile)
 - Three Ireland (Hutchison) Limited (Three)
 - Twilio Ireland (Twilio)
 - Vodafone Ireland Limited (Vodafone)
 - Virgin Media Ireland Limited (Virgin Media)
- 3 The non-confidential submissions are published³ alongside this Document and considered herein.

¹ <u>ComReg Document 21/28</u> – Review of the Numbering Conditions of Use and Application Process Document

² ComReg received submissions from Eir on 11 May 2021 and 18 June 2021. ComReg, in its discretion, allowed the latter submission.

³ ComReg Document 21/75s – Submissions to Consultation 21/28

- 4 ComReg, having carefully considered the submissions to Consultation 21/28, has decided to make amendments to ComReg Document 15/136R2 – "Numbering Conditions of Use and Application Process" (the "Numbering Conditions")⁴. The revised version of the Numbering Conditions⁵ (now ComReg Document 15/136R3) is also published alongside this Document.
- 5 This Response to Consultation sets out the basis for the decision to amend the Numbering Conditions and ComReg's consideration of the submissions to Consultation 21/28.
- 6 Regarding the proposed amendments to the Numbering Conditions, three key areas were addressed by Consultation 21/28:



7 Below is a summary of the topics addressed within each of these areas.

European Electronic Communications Code ("EECC")⁶

8 Section 2 of this Response to Consultation sets out ComReg's decisions in relation to implementing and reflecting in the Numbering Conditions relevant new provisions relating to numbering in the EECC and consulted upon in Consultation 21/28.

⁴ ComReg Document 15/136R2 – Numbering Conditions of Use and Application Process.

⁵ ComReg Document 15/136R3 – Numbering Conditions of Use and Application Process

⁶ <u>Directive (EU) 2018/1972</u> OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2018 establishing the European Electronic Communications Code

- 9 The EECC is in the process of being transposed into draft Regulations by the Department of the Environment, Climate, and Communications ("the Department"), entitled "The European Union (European Electronic Communications Code) Regulations 2021".
- 10 It is important to note that for the most part, the provisions relevant to management of the numbering resource set out in the EECC are identical to the equivalent provisions set out in the current EU Telecoms Framework (which is repealed and replaced by the EECC).
- 11 The key numbering issues relating to the EECC, set out in Section 2 of this Document, are as follows:
 - i. Numbers for Non-ECN⁷/ECS⁸: Under Article 93(2) of the EECC, ComReg may assign numbers to Non-ECN/ECS entities under certain conditions. Based on Recitals in the EECC and other sources, it appears that large Machine to Machine (M2M) or Internet of Things (IoT) end-users are considered the main context, although others may exist.
 - ii. *Extraterritorial use of numbers:* Article 93(4) requires Member States (MS) to introduce numbers with a right of extraterritorial use in the EU and the coordination of activities by National Regulatory Authorities (NRAs) to ensure the efficient management of numbering resources.
 - iii. Over-The-Air (OTA) provisioning of numbers: Article 93(6) is a new requirement for MS to promote OTA provisioning, in particular to facilitate switching between service providers. OTA provisioning allows for the remote activation or switching of a user profile on an 'embedded' SIM (eSIM) in a portable device by consumers (e.g., smart phone, smart watch, fitness band or tablet) or for M2M applications (e.g., connected vehicle).
 - iv. 116000 hotline: In relation to 116 harmonised services of social value, Articles 96(3) and 96(4) now require MS to also take appropriate measures to ensure that necessary resources are allocated to the operation of the 116000 missing children hotline and that end-users are adequately informed of the hotline, and where appropriate, the 116111 child helpline hotline.
 - v. Porting after termination of service: Article 106(3) sets out that, where an enduser terminates a contract, MS shall ensure that the end-user can retain the right to port a number to another provider for a minimum of one month after the date of termination, unless that right is renounced by the end-user.

⁷ electronic communications network (ECN)

⁸ electronic communications service (ECS)

12 The balance of the legislative framework for numbering is largely unchanged.

NGN Implementation

- 13 Section 3 of this Document addresses elements of the ongoing Non-Geographic Number (NGN) implementation project that have highlighted the need for amendments or additions to the Numbering Conditions and the Decision Instrument D15/18 in ComReg Document 18/106⁹.
- 14 ComReg's Decision Instrument D15/18 in Document 18/106 set out two measures to improve the NGN platform. In summary, the measures were i) 'geo-linked' retail tariffs for 1850, 1890, 0818 and 076 calls, which was implemented as planned on 1 December 2019, and ii) the consolidation of five NGN ranges (1800, 1850, 1890, 0818 and 076) down to two (1800 and 0818) by 1 January 2022. Discussions at the NGN Working Group ("NGN WG") highlighted several items to be factored into the current Numbering Conditions review:
 - i. *Mobile numbers for PPDR:* ComReg proposed to assign 089 mobile numbering resources for Public Protection and Disaster Relief (PPDR) services. Currently the PPDR service uses numbers from the 076 range which is being ceased on 31 December 2021 as part of NGN Consolidation.
 - ii. *Utility emergency contact numbers:* ComReg proposed to grant a two-year extension from the NGN Consolidation deadline of 31 December 2021 for six 1850/1890 emergency contact numbers in use by utilities.
 - iii. *Calling 1800 from abroad:* ComReg explored the possible implementation of international access to 1800 Freephone numbers.
 - iv. Notifying end-users about numbers being ceased: The current Numbering Conditions require operators to notify their customers of number changes in a timely manner, to implement recorded announcements, and so on. Experience from the implementation of NGN Consolidation has highlighted the need for additional obligations in this area, as some operators appear to have not adhered to industry-agreed plans and timelines.
 - v. Assignment of NGNs: The industry-agreed Individual Number Assignment (INA) process requires operators to have a valid end-user order prior to ordering a number via the INA system. ComReg proposed a new condition of use to formalise this.

⁹ <u>ComReg 18/106 and D15/18</u> Review of Non-Geographic Numbers, Response to Consultation 18/65 and Decision. Annex 1 of that document contains the Decision Instrument.

vi. *Resellers:* ComReg set out its view on the presence of NGN resellers in the market.

Market and Technology Developments

- 15 Section 4 of this Document focuses on ComReg's proposals in respect of cloud numbering and assesses the suitability of the existing numbering conditions to support new and innovative services enabled by cloud numbers.
- 16 Cloud communications services or 'Cloud services' are infrastructure platforms and software that are hosted by third-party providers to connect businesses or service providers with consumers by providing communications services made available through the internet. These include telephony services to enhance privacy of end users, online 'click to call' services, and providing telephony access to conference platforms and call centres. Numbering resources are used to deliver such use cases and services, as described more fully below. Such numbering resources are sometimes referred to as 'virtual' or 'Cloud' numbers.
- 17 In assessing relevant Cloud services use cases, ComReg identified four categories based on the functionality provided. These are:

I. Privacy Enhancement

18 This use case supports the exchange of information between parties unknown to each other, where there is a requirement to maintain privacy. This includes, for example, car-sharing applications such as Uber which allows customer privacy to be protected using Cloud Numbers during the communications between the driver and the passenger.

II. Conference Platforms

- 19 This use case provides consumers with local access to global conference and collaboration platforms.
- 20 Examples of conference platforms include Zoom, MS Teams and Google Hangouts. These platforms provide a range of Cloud Numbers to allow users connect from many worldwide locations, using fixed and mobile connections.

III. Click to Call

21 This is a form of web-based communication, in which a user clicks an object such as a button, image or text, to request an immediate connection with another person or business in real-time, by phone, Voice over IP (VoIP) or text. It includes, for example, Google's use of a 'Click to Call' button to establish communication between a consumer and a business.

IV. Call Centres

- 22 This use case allows companies to manage global access to their call centre by providing local number dialling for consumers. Examples of the use case include Call Centre platforms (e.g. Twilio, Blueface) and Global Enterprise Call Centres.
- 23 To inform its assessment of an existing numbering condition of use that an end-user of a Geographic Number be physically located within the designated Minimum Numbering Area ("MNA")¹⁰ for that Geographic Number¹¹, ComReg commissioned Behaviour & Attitudes Limited ("B&A") to conduct a consumer market research survey and gather relevant research to understand how users engage with and understand the Geographic Numbering platform.
- 24 The survey also considered whether it would be appropriate to permit the temporary use of numbers mainly to facilitate personal transactions allowing consumers to advertise goods and personal services.
- 25 With respect to Cloud Numbering, ComReg assessed the suitability of existing numbering conditions of use in addressing two key regulatory requirements, namely Number Portability and Calling Line Identification (CLI).
- 26 Regarding MNAs, which are a sub-division of geographic area codes, ComReg sought views on the continued use of this concept.
- 27 About the availability of mobile numbers for Drama use, ComReg sought views on its proposed use of the 089 range for this purpose.
- 28 ComReg also proposed to include a clarification in the Numbering Conditions that trading of numbers is not permitted.

¹⁰ "minimum numbering area" (MNA) means one of the 106 geographic areas associated with Geographic Numbers, as defined in the "the National Numbering Plan"

¹¹ ComReg 15/136R2 - Section 4.1 "Geographic Numbers"

2 EECC Transposition

2.1 EECC Numbering Provisions in Document 21/28

- 29 The new provisions in the EECC in relation to numbering issues are the following, which will be discussed sequentially below:
 - allowing the possibility to assign numbers to undertakings other than providers of electronic communications networks or services (Article 93(2));
 - enabling the extraterritorial use of non-geographic numbers within the EU for the provision of non-interpersonal communications services (Article 93(4));
 - iii) promoting, where technically feasible, the over-the-air (OTA) provisioning of numbers for easier switching (Article 93(6));
 - iv) resourcing and promotion of missing children and child helpline hotlines (Article 96);
 - v) additional requirements in relation to provider switching and number portability (Article 106); and
 - vi) further consequential amendments, including adding a definition of interpersonal communications service to take account of expanded definition of "electronic communications service".

In its analysis of the above provisions carried out in this section, ComReg concludes that, with the exception of provider switching and number portability, these provisions do not currently require changes to the conditions of use of numbers and consequently to the Numbering Conditions document.

2.2 Assignment of numbers to non-ECS/ECN entities

Summary of ComReg's view in Document 21/28

- 30 In ComReg Document 21/28, ComReg noted that Article 93(2) of the EECC permits National regulatory or other competent authorities to grant rights of use for numbering resources from the national numbering plans for the provision of specific services to undertakings other than providers of electronic communications networks or services, provided that adequate numbering resources are made available to satisfy current and foreseeable future demand. ComReg referred to Recital 250 of the EECC and noted that Article 93(2) needs to be read along with Article 94(7). ComReg noted that pursuant to Article 93(2) of the EECC, the Body of European Regulators for Electronic Communications ("BEREC") has adopted guidelines on common criteria for the assessment of the ability to manage numbering resources and of the risk of exhaustion of numbering resources ("BEREC Article 93(2) Guidelines"), and furthermore ComReg noted that BEREC received no responses from non-ECN/ECS entities to its consultation on the BEREC Article 93(2) Guidelines.
- 31 ComReg noted the reference in Recital 250 of the EECC to the benefits for the IoT/M2M sector in permitting the assignment of numbers to non-ECS/ECN. With regard to IoT/M2M, ComReg carried out a review of mobile numbering resources in 2018 which, following a public consultation¹², concluded with the introduction of the 088 M2M number range in 2018¹³.
- 32 ComReg noted the option provided in the EECC for it to assign numbers to non-ECS/ECN. While the EECC highlights the potential use of such assignments in the IoT/M2M sector, as noted above, no use cases were identified in responses to the BEREC public consultation on its Guidelines. In addition, ComReg noted that it had not received queries from any IoT end-users in relation to potential assignments of numbers, and ComReg is not aware (via its participation in CEPT Working Groups) that any other NRA has been approached on this issue.
- 33 Therefore, ComReg's preliminary position was that it was not minded to make amendments to the Numbering Conditions in respect of this option at this time. Instead, ComReg stated that it would consult further with industry on appropriate conditions of use attaching to numbers assigned to non-ECS, should a use case be presented to it in the future. Furthermore, in noting the EECC's identification of the IoT/M2M sector as the source of potential use cases, ComReg proposed to only consider the assignment of 088 M2M numbers to non-ECS/ECN in the future.
- 34 ComReg sought responses to the following consultation question:

Q.1 Do you agree with ComReg's preliminary position on the assignment of numbers to non-ECS/ECN as permitted by Article 93(2) and Article 94(7) of the EECC?

¹² <u>ComReg Document 18/03</u> – Review of Mobile Numbering - Consultation

¹³ <u>ComReg Document 18/46 and D06/18</u> – Review of Mobile Numbering – Response to Consultation 18/03 and Decision

Views of respondents to Document 21/28

- 35 Respondents to Document 21/28 who responded specifically to this question agree with ComReg's preliminary position on the assignment of numbers to non-ECS/ECN.
- 36 Tesco Mobile in its response states: "In the absence of a use case, this approach makes eminent sense."
- 37 Three in its response states: "ComReg has adopted a sensible approach in this case. Demand for direct assignment of numbers has not emerged yet and it would not seem sensible to make amendments to the current process until there is at least a firm demand for such." Three went on to state: "The 088 number range provides adequate numbers to ensure there is adequate supply available for all IoT use for the foreseeable future, so there is no demand driven reason for direct assignment."
- 38 Twilio, whilst agreeing with ComReg's preliminary position, states: "Twilio does believe that it is important for ComReg to continue to monitor developments in this area in the event a change of position is required prior to the next review of the Numbering Conditions." Equally, Vodafone states: "ComReg should continue to consult with industry on appropriate conditions of use attaching to numbers assigned to non-ECS as it is highly probable that such use cases will be presented to ComReg in the future."

ComReg's Assessment

- 39 In light of ComReg's preliminary position and respondents' comments, ComReg confirms its position that it will not make amendments to the Numbering Conditions in respect of the option under Article 93(2) of the EECC for national regulatory authorities to grant rights of use for numbering resources from the national numbering plans for the provision of specific services to undertakings other than providers of electronic communications networks or services, at this time.
- 40 ComReg will consult further with industry on appropriate conditions of use attaching to numbers assigned to non-ECS should a use case be presented to it in the future.
- 41 Furthermore, in noting the EECC's identification of the IoT/M2M sector as the source of potential use cases, ComReg will only consider the assignment of 088 M2M numbers to non-ECS/ECN in the future.

2.3 Extra-territorial use of numbers

Summary of ComReg's view in Document 21/28

- In Document 21/28, ComReg noted that Article 93(4) of the EECC provides that each Member State shall ensure that national regulatory or other competent authorities make available a range of non-geographic numbers which may be used for the provision of electronic communications services other than interpersonal communications services, throughout the territory of the Union. ComReg noted Recital 246, and noted that Article 93(4) provides that: "In order to facilitate the monitoring by the national regulatory or other competent authorities of compliance with the requirements of this paragraph, BEREC shall establish a database on the numbering resources with a right of extraterritorial use within the Union".
- 43 ComReg noted that it is liaising with BEREC in the population of this database with the appropriate Irish numbering resources, and stated that ComReg does not see a need and so does not propose to carry out an administrative update to the Numbering Conditions in respect of this database.
- 44 ComReg noted that it introduced a dedicated M2M number range in 2018, following public consultation. This was prompted in part by forecasted exponential growth of M2M connections on mobile networks and a clear trend for the extraterritorial use of national numbers across the EU and internationally by M2M Service Providers. In Document 19/104, ComReg had made changes to the Numbering Conditions to take into account the M2M Decision, including adding a condition that the number holder shall ensure that M2M numbers used extraterritorially are used in compliance with consumer protection and other national rules in the country in which they are used, and adding definitions for 'extraterritorial use', 'M2M service' and 'OTT service'.
- 45 ComReg noted that paragraph 4.8 (3) of the Numbering Conditions, which is in the section of the Numbering Conditions that sets out Rights of Use Conditions in relation to Machine to Machine numbers, provides that: "The number holder shall ensure that M2M Numbers used extraterritorially are used in compliance with consumer protection and other national rules in the country in which they are used."
- 46 ComReg stated that as it anticipates the Department to use a "pure copyout" approach to transposition of this element of the EECC, so therefore ComReg expects that the second paragraph of Article 93(4) will be transposed fully in the Transposing Regulations.
- 47 ComReg noted that it has already made available the 088 non-geographic number range for M2M. Furthermore, the conditions of use attaching to these M2M numbers, such as permission for their use extraterritorially, are reflected in ComReg's current Numbering Conditions. Consequently, as ComReg has already implemented Article 93(4), ComReg's preliminary view was that no further amendments to the Numbering Conditions in this respect are necessary.
- 48 ComReg sought responses to the following consultation question:

Q.2 Do you agree with ComReg's position that Article 93(4) of the EECC does not require further amendments to the Numbering Conditions document? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/18

- 49 Respondents to Document 21/28 who responded specifically to this question agree with ComReg's preliminary position on the extra-territorial use of numbers.
- 50 Eir agrees with ComReg's position that no further action is required at the current time. Three states: "Yes, we agree that this is provided for already". Vodafone states: "It does appear that the transposition of Article 93(4) will not require further amendments as the current M2M rules. The issues addressed in this Article were already examined in ComReg's consultation on the introduction of the 088 range and we agree, at this time, that no further amendments to the Numbering Conditions in this respect are necessary."

ComReg's assessment

51 In light of ComReg's preliminary position and respondents' comments, ComReg confirms its position that it will not make amendments to the Numbering Conditions in respect of Article 93(4) of the EECC.

2.4 **Promotion of Over-The-Air Provisioning**

Summary of ComReg's views in Document 21/28

52 In Document 21/28, ComReg noted that Article 93(6) of the EECC provides that Member States shall promote over-the-air provisioning, where technically feasible, to facilitate switching of providers of electronic communications networks or services by end-users, in particular providers and end-users of machine-to-machine services.; ComReg also noted the requirement in Article 106(6) for porting to be completed through OTA provisioning, unless an end-user requests otherwise. ComReg is currently undertaking a project to develop a strategy for how ComReg will promote OTA provisioning to facilitate provider switching in order to implement Article 93(6).

- 53 To assist in this project, ComReg noted that it had procured expert advisors WIK-Consult GmbH (WIK-Consult) to complete a number of tasks, including assessing the future potential of eSIM and OTA provisioning in the State for identified primary use categories; assessing the potential impact of OTA provisioning on competition, end consumers and network security and identifying challenges to the realisation of the full benefits of OTA provisioning, particularly as regards switching; assessing the current situation for OTA provisioning in Ireland; proposing a Vision for best-in-class OTA provisioning to facilitate switching in Ireland; and developing a strategy for OTA provisioning in Ireland (with particular regard to switching) in light of the proposed Vision.
- 54 ComReg stated that it intends to publish the report by WIK-Consult (with confidential information suitably redacted), together with a public preliminary consultation, in Q3 2021. ComReg stated that it may also commission further expert advice on specific issues, relating to WIK-Consult's findings.
- 55 ComReg stated that it does not presently consider that amendments to the Numbering Conditions document need to be made to take account of OTA as set out in the EECC.
- 56 ComReg sought responses to the following consultation question:

Q.3 Do you agree with ComReg's position that amendments are not presently required to the Numbering Conditions document in light of Article 93(6) or Article 106(6) of the EECC? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/28

- 57 Respondents to Document 21/28 who responded specifically to this question agree with ComReg's preliminary position on the promotion of OTA provisioning.
- 58 Three states: "Over the air provisioning marks a significant change to the means by which end users and their individual terminal equipment are provisioned with service. While bringing about a significant change for end-users, it will also require completely new support systems for operator networks and their supply chains. These warrant a specific consultation as outlined by ComReg, and Three will be happy to engage with that process. We agree that ComReg should await the outcome of that process rather than making changes to the conditions now."

- 59 Vodafone states: "Vodafone welcome ComReg's proposal to undertake a project to develop its approach in fulfilling its role to promote OTA provisioning. We look forward to cooperating with the study proposed and agree that Amendments are not required to the Number Conditions document in light of Article 93(6) or Article 106(6) of the EECC."
- 60 Virgin Media states that it awaits the publication of the strategy around how ComReg will promote OTA provisioning and will provide comments at that time.

ComReg's Assessment

- 61 In light of ComReg's preliminary position and respondents' comments, ComReg confirms its position that amendments to the Numbering Conditions document do not currently need to be made to take account of Over-the-Air Provisioning as set out in the EECC.
- 62 ComReg intends to publish the report by WIK-Consult GmbH (with confidential information suitably redacted) on Over-the-Air Provisioning, together with a public preliminary consultation, in Q3 2021.

2.5 Missing children and child helpline hotlines

Summary of ComReg's view in Document 21/28

- 63 In Consultation 21/28, ComReg noted that Article 96 of the EECC imposes certain legal obligations in relation to missing children and child helpline hotlines. ComReg noted that there are a number of provisions in the current Numbering Conditions document that relate to child helplines, including Section 5 of the Numbering Conditions which sets out conditions for specific classes of short codes, specifically paragraph 5.5 which relates to harmonised codes of social value.
- 64 ComReg stated that it did not consider that amendments to the Numbering Conditions document need to be made to take account of Article 96 of the Code at this time.
- 65 ComReg underlined that it is important that Article 96(3) of the EECC is fully transposed. This Article provides as follows: "Member States shall take appropriate measures to ensure that the authority or undertaking to which the number "116000" has been assigned allocates the necessary resources to operate the hotline". ComReg recommended that relevant Government departments should review the operation of these services to ensure that they are adequately resourced, and ComReg suggested that any promotion of these services to end-users, as also required by Article 96, should be contingent on the outcome of such a review.

66 ComReg sought responses to the following consultation question:

Q.4 Do you agree with ComReg's position that no amendment to the Numbering Conditions in respect of Article 96 of the EECC is required? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/28

- 67 Eir agrees with ComReg's position that no amendments are needed at the current time. Tesco Mobile also agrees with ComReg's approach.
- 68 Three states that it agrees with ComReg's approach, noting that the 116000 number is already up and running in Ireland in a manner that will comply with the requirements of the EECC. Three went on to state: "For the Numbering Conditions there are no amendments needed. Other issues like resourcing of the services that are provided using these services are outside the scope of ComReg's numbering functions."
- 69 Vodafone agrees with ComReg's position that no amendment to the Numbering Conditions in respect of Article 96 of the EECC is required.

ComReg's Assessment

70 In light of ComReg's preliminary position and respondents' comments, ComReg confirms its position that amendments to the Numbering Conditions document do not need to be made to take account of Article 96 of the EECC at this time. ComReg reiterates the importance of ensuring that Article 96(3) of the EECC is fully transposed.

2.6 **Provider switching and number portability**

Summary of ComReg's view in Document 21/28

71 Article 106 of the EECC, which is in Title III (End-user rights) of Part III (Services) of the EECC, relates to provider switching and number portability, and provides inter alia as follows: "3. Where an end-user terminates a contract, Member States shall ensure that the end-user can retain the right to port a number from the national numbering plan to another provider for a minimum of one month after the date of termination, unless that right is renounced by the end-user."

- 72 ComReg's preliminary view was that it did not consider that significant changes are necessary to the Numbering Conditions document in light of the relevant provisions relating to provider switching and number portability set out in Article 106 of the EECC set out above. ComReg stated that it is of course incumbent on industry to review all industry porting processes to ensure they are fully aligned to the EECC requirements in general, and Article 106 (3) in particular.
- 73 ComReg proposed to add a clarification to the Numbering Conditions document that the industry porting process includes porting numbers out of quarantine, as follows:

Section 3.2 "Rights of Use Conditions" paragraph 7: "When a number is surrendered by an end-user or is otherwise recovered by the holder which assigned the number or by the undertaking to which the number was ported, the number shall thereupon be placed in quarantine for a period of 13 months and shall not be assigned to anyone other than the previous end-user during the 13-month period of quarantine. In addition, the end-user retains the right to port the terminated number to another provider at any time during the quarantine period unless that right is renounced by the end-user. There shall be no conditions placed on an end-user to re-contract or make contact with the provider where the number is quarantined in order for that number to be ported. The quarantine period may be waived if the previous end-user and the new end-user both consent to this in writing, and the holder for the number shall make such end-users aware of the consequences of waiving the quarantine period"

- 74 ComReg's proposal for such porting at any time during the 13-month quarantine period was based on existing manual processes and industry practices. This had already been highlighted in ComReg Information Notice 20/111R¹⁴ which notes that ComReg is aware the current industry practices allow for more than one month for end users to port their number in such circumstances (i.e. any time within the quarantine period) and ComReg sees no reason why this would not continue.
- 75 ComReg sought responses to the following consultation question:

Q.5 Do you agree with ComReg's proposed implementation of relevant provisions of Article 106 of the EECC relating to provider switching and number portability? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/28

76 There were a number of detailed comments by respondents to this question.

¹⁴ Regulatory Guidance on Title III: End-User Rights of the European Electronic Communications Code, ComReg Document 20/111R, 23 December 2020

- Fir agrees that the requirements in the Code for the number to be available post termination are already met in Ireland, but Eir would suggest a minor amendment to the proposed text to be included in the Numbering Conditions as follows: "In addition, the end-user retains the right to port the terminated number to another provider at any time during the quarantine period unless that right is renounced by the end-user. There shall be no conditions placed on an end-user to recontract or make contact with the provider where with whom the number is quarantined in order for that number to be ported."
- 78 Furthermore, Eir comments that it currently uses existing pre-pay mechanisms for the porting of ceased numbers. However, Eir also indicates that this requires the activation of the number and that this entails a contract, albeit a light form, with the end-user. To take account of this, Eir proposes an alternative to ComReg's wording as follows:

"There shall be no conditions placed on an end-user to <u>enter a fixed duration</u> <u>contract</u> re-contract or make contact with the provider where the number is quarantined in order for that number to be ported."

- 79 BT states that it agrees with ComReg's proposed implementation of the relevant provision of Article 106 as it relates to number portability, and states that it considers that the Internet Access Switching (IAS) aspects of Article 106 are out of scope for this consultation as it believes certain aspects of the IAS need clarification by the industry and ComReg.
- 80 Tesco Mobile states that it agrees with ComReg's proposed implementation of relevant provisions of Article 106 of the EECC, subject to the following comment: "In order to validate the porting request (and avoid customers being ported without their consent), the relevant number will have to be reactivated (which might involve contact with the customer) and the 1 working day porting window will have to take account of the amount of time that it takes to do this."
- 81 Three makes a number of comments, particularly in relation to mobile numbering:
 - At the moment, operators facilitate the porting of numbers which have recently terminated service, however this is achieved by manual intervention in the normal recycling process. This is adequate at the moment as it is generally only an exception when such a case arises. In addition, the longer a number has been out of service the less "value" there is to the end user in its re-activation;
 - The current manual process is unlikely to be adequate for a situation where users have a right in the Numbering Conditions to port a number from termination on the same basis as a number that is in service – modifications to the porting systems will be needed so that these "ports" can occur automatically. Article 106 of the EECC would seem to imply that the porting of

terminated numbers would occur on the same basis as an "in-service" number, which will require the support of automated processes.

- Verification of the "right to use" will still be required for terminated numbers. For pre-pay unregistered mobile numbers at present this is achieved (in most cases) by sending a PIN or authorisation code to the number. This will not be possible for numbers that have been terminated. It will be necessary to develop an alternative means of verification that will work in an automated environment.
- The EECC requires porting of numbers for a minimum of one month after termination. ComReg's proposal goes much further and would impose a requirement on operators to port numbers "at any time during the quarantine period". This obligation goes significantly beyond what is required in the EECC which does not require porting to be available for more than one month. While operators would be likely to facilitate porting after one month, it would be inappropriate for it to be mandatory for the full duration of the quarantine period.
- 82 Three states that, for the reasons outlined above in its comments, it does not support the amendment to the Numbering Conditions at this time. Three maintains that ComReg should instead engage with operators (possibly through the Numbering Forum) to consider what amendment to the Conditions is appropriate and whether a transition period for systems development will be required.
- 83 Twilio notes that the period of 13 months to allow a customer to port a number after they have terminated their service is extremely long, particularly when compared with the one month minimum period set out in Article 106 of the EECC. Whilst it may be voluntary industry practice to allow for a longer period to port numbers upon termination of the contract, Twilio does not agree that a 13-month period should be mandated within the Numbering Conditions. Twilio went on to state that in the event that ComReg believes that a period of greater than one month is needed, it believes that such a period should be based on evidence on how many customers take advantage of the right to port their numbers after 1 month following termination of their service. In Twilio's experience if a customer is going to port a number it occurs prior to terminating the contract or relatively soon after the contract is terminated. Twilio believes that any change to the Numbering Conditions (as opposed to voluntary industry practice) that departs from the EECC to such an extent should be evidence based.

- 84 Furthermore, Twilio notes that other countries, such as the United Kingdom and Finland, have granted end-users the right to port their numbers within the one month. Twilio also believes that allowing a customer to port quarantined numbers up to the end of the 13th month quarantine period contradicts the requirement to efficiently use numbers. In particular, if the right to port numbers during the 13-month quarantine period is enshrined in the Numbering Conditions, ECSs/ECNs would not be able to guarantee that those numbers will be returned into inventory and in their planning for number management are therefore likely to seek new numbers from ComReg that may in the end be unnecessary.
- Twilio also notes that requiring ECS/ECN to allow customers to port numbers during the 13-month quarantine period would require them to retain personal data on their customers for a considerable period of time. This, coupled with the fact that in Twilio's experience most customers port a number prior to terminating the contract or relatively soon after the contract is terminated, seems to go against the spirit of the General Data Protection Regulation (GDPR). Consequently, Twilio urges ComReg to reconsider allowing end-users to port numbers on termination of their contract for a period of either one or three months after the date of termination versus the 13 months currently being proposed by ComReg.
- 86 Virgin Media broadly agreed with the proposal. However, Virgin Media suggested that ComReg considers an alternative term to 'terminated number' 'surrendered number' might be a more appropriate term.
- 87 Vodafone states that it "has no issue with the intent of the proposal from ComReg. We are working with the other industry players to ensure that all of implementation of porting are operating in line with the EECC". Vodafone agrees that a user should not have to re-contract with his previous provider in order to port. However, as Vodafone points out, ComReg's text also suggests the losing operator may not contact the customer. Vodafone suggests that it should be caveated that it is acceptable for the losing operator to reactivate the customer on their network in order to facilitate the port. Vodafone maintains that, in some cases, verification of end-user can be difficult, e.g. in a dissolved partnership. Vodafone goes on to state that including the phrase 'make contact' may prove an obstacle to resolving a small number of issues that arise. Vodafone also notes that it should be sufficient for the previous end-user to consent in writing.

ComReg's Assessment

88 It should be noted that it is not the case that as Article 106(3) of the EECC only mentions one month then that should be the period. The EECC indicates a *minimum* of 1 month which leaves scope for longer periods.

- 89 In response to Virgin Media's suggestion that ComReg should consider an alternative term for 'terminated number', such as 'surrendered number', ComReg notes that Article 106 paragraph 3 uses the phrase "date of termination" with regard to the number to be ported. Therefore, ComReg will retain the term 'terminated number'.
- 90 ComReg notes Three's view that, in the case of Mobile Number Portability (MNP), "the current manual process is unlikely to be adequate for a situation where users have a right in the Numbering Conditions to port a number from termination on the same basis as a number that is in service". Furthermore, Three maintains that modifications to the porting systems to automate the process is required. ComReg agrees that the port of a number from termination should be on the same basis as that for a number in service. Consequently, the implementation of an automated process in the MNP system to achieve this will need to be discussed by industry.
- 91 Furthermore, ComReg's view is that such automation does not impact on its proposal on the period during which the end-user may port their terminated number; whether it is one month or thirteen should not matter in this regard.
- 92 ComReg notes Three and Eir's comments on the issues arising in automating the porting of terminated numbers in the case of pre-pay unregistered end-users. ComReg agrees with Three's view that an alternative means of verification, that will work in an automated environment, is required.
- 93 Three maintains that the longer a number has been out of service the less "value" there is to the end user in its re-activation. However, Three does not provide evidence for this, such as demonstrating lower demand for the porting of previously ceased numbers over time.
- 94 Twilio maintains that 13 months is too long because, in its experience, the demand is to port numbers shortly before or shortly after ceasing a contract. Twilio maintains that the adoption of the proposal should be evidence based, although ComReg notes that Twilio does not provide any data on end-user demand to support its assertion.
- 95 Twilio also maintains that the longer period is not an efficient use of numbers. The argument appears to be that, with a shorter period, the operator would be better able to forecast the numbers that would be available to it for re-use after the 13 month quarantine period so it could plan its new numbering needs more accurately. In response, ComReg's view is that, in the absence of data on end-user demand, it cannot assess the level of impact on such number planning.

- 96 ComReg notes Twilio's comment that, considering its experience that most customers port a number prior to terminating the contract or relatively soon after the contract is terminated, then the 13 month period proposed by ComReg seems to go against the spirit of the GDPR. In response, ComReg again highlights that Twilio has not provided data in support of its view on customer demand in this respect. However, ComReg does take into account the requirements of GDPR and will consider Twilio's comment in its final analysis in determining the most appropriate time period during which an end-user may port a terminated number.
- 97 Tesco Mobile, Eir and Vodafone comment on ComReg's proposal that there shall be no conditions placed on an end-user to re-contract or make contact with the provider where the number is quarantined in order for that number to be ported. In that regard, ComReg notes Recital 281 of the EECC which sets out the principle that "the switching process should be led by the receiving provider of electronic communications to the public". As the EECC does not distinguish between porting an active or terminated number, the porting of the latter should follow this same principle. Consequently, ComReg remains of the view that the end-user should not have to contact or enter into a contract with their previous operator. Nevertheless, ComReg recognises that there are issues to be resolved around implementation, particularly around the activation of the terminated number, as highlighted by Tesco Mobile and Vodafone, and this should be considered further by industry.
- 98 In Consultation 21/28, ComReg set out its preliminary position that end-users should have the right to port their terminated number for up to 13 months after the number is terminated. This time frame was proposed on the basis that it was already accommodated by operators in the Fixed Number Portability (FNP) system and, in ComReg's view, the time frame should be consistent across mobile as well as fixedline numbers. Nevertheless, in considering the comments from respondents on the 13-month period set out in its proposal, ComReg considered three options as follows:
 - Allow one month minimum provision in the EECC;
 - Allow 13 months maximum possible time frame given the 13-month quarantine period; or
 - Allow a time frame greater than one month and less than 13 months.
- 99 Notwithstanding the absence of end-user demand data, the maximum time frame of 13 months would be the best choice in minimising the risk of end-users being unable to port their number out of quarantine. However, ComReg also notes Twilio's comment on the implication for GDPR and the comments from Three and Twilio on the need for a shorter mandatory time frame for allowing end-users to port their terminated numbers. ComReg considers that, on balance, a time frame of less than 13 months may be appropriate.

- 100 Also, notwithstanding the absence of data on end-user demand, a one month time frame would pose the highest risk of many end-users being unable to port their number out of quarantine.
- 101 Therefore, on balance, ComReg considers that a time-frame greater than one month and less than 13 months is appropriate. Furthermore, in the absence of data on enduser demand ComReg will set this time frame to six months. For clarity, ComReg notes that the setting of this time frame does not preclude industry from supporting a porting process that allows for porting of numbers in quarantine over the full duration of the quarantine period.
- 102 Thus, having regard to the views of respondents, and in also carrying out its own assessment, ComReg proposes to amend the time frame in which the end-user can port their previously ceased number from the 13 months proposed in Consultation 21/28 to six months. It will be necessary for the FNP/MNP committees to discuss the practicalities of how such porting can be carried out.
- 103 ComReg also notes and will make the minor amendment to ComReg's proposed text as suggested by Eir as follows;

"There shall be no conditions placed on an end-user to recontract or make contact with the provider where with whom the number is quarantined in order for that number to be ported."

104 ComReg notes Eir's further submission of alternative (underlined) wording to ComReg's proposal as follows:

"There shall be no conditions placed on an end-user to <u>enter a fixed duration contract</u> re-contract or make contact with the provider where the number is quarantined in order for that number to be ported."

In considering Eir's submission, ComReg maintains its view that the end-user need not re-contract with the provider when porting their number. This should apply whether that number is active or terminated. This is an important principle in porting and should be maintained. ComReg therefore does not agree with Eir's latter suggestion regarding re-contracting.

- 105 ComReg has noted respondent comments on the issues arising in implementing the system/process changes necessary to ensure that the port of a number from termination should be on the same basis as for a number in service. In that respect, ComReg will discuss a timeline for implementation with industry.
- 106 Therefore, having considered the views of respondents, and in carrying out its own assessment, Section 3.2 (7) will be amended by adding the underlined text set out below:

"When a number is surrendered by an end-user or is otherwise recovered by the holder which assigned the number or by the undertaking to which the number was ported, the number shall thereupon be placed in quarantine for a period of 13 months and shall not be assigned to anyone other than the previous end-user during the 13-month period of quarantine. In addition, the end-user retains the right to port the terminated number to another provider for up to six months after the termination of the number unless that right is renounced by the end-user. There shall be no conditions placed on an end-user to re-contract or make contact with the provider where_with whom_the number is quarantined in order for that number to be ported. The quarantine period may be waived if the previous end-user and the new end-user both consent to this in writing, and the holder for the number shall make such end-users aware of the consequences of waiving the quarantine period"

- 107 In relation to implementation, ComReg again notes that this requirement is largely being met by industry on an ad-hoc basis. ComReg also acknowledges the current work of the industry FNP Working Group to adapt the fixed NP process to fully meet all of the requirements of Article 106 of the EECC. ComReg requests that the Group also now factors this amended Condition of Use into the Industry Process Manual and the industry FNP processes as soon as is practicable.
- 108 In relation to MNP, ComReg notes that while there are currently manual workarounds in place that can somewhat facilitate this requirement, they do not adequately meet all the requirements of Article 106, and indeed this has been recognised by Three and others. As with the FNP Working Group, ComReg requests that the industry MNP Committee also now factors this amended Condition of Use into the MNP Process Manual and, as soon as practicable, proceeds to develop a more automated solution. In that regard, the MNP Committee shall through its Chairperson keep ComReg regularly updated on its progress (at such intervals and with such level of detail as ComReg may require), with an initial progress update to be provided by 30 September 2021.
- 109 ComReg is not minded at this point to mandate further details around the implementation of this requirement (beyond what is set out in the amended Condition of Use). However, it reserves its powers in this regard in relation to aspects of implementation or required delivery timescales.
- 110 Finally, note that ComReg will also consider whether a further review in respect of this requirement of Article 106 of the EECC should form part of the next review of the Numbering Conditions of Use, in light of both industry and end-users' experience with any new process and the actual demand from end-users in the intervening period.

2.7 Consequential EECC Amendments, such as

Amendments to Appendix 11 ("Definitions") of the Numbering Conditions Document

Summary of ComReg's view in Document 21/28

- 111 In Consultation 21/28, ComReg proposed a number of amendments to the Numbering Conditions document in order to take account of changes to relevant definitions brought in by the EECC.
- 112 To take account of the expanded definition of "electronic communications service" in the EECC, which now includes Interpersonal Communications Service, we have expanded the definition of "electronic communications service" in Appendix 11 Definitions of the Numbering Conditions document, and we have consequently added a new definition of "interpersonal communications service". ComReg noted that in terms of access to numbers and services, the requirements of Article 97(1) of the EECC are already reflected in the Numbering Conditions of Use and Application document at Section 3.1 (9) of ComReg 15/136R2 or Section 3.1 (10) of the draft Numbering Conditions, ComReg 21/28a. However, in the section on NGNs in this response to consultation, ComReg also considers the requirements of Article 97(1) in respect of International access to 1800 Freephone.
- 113 ComReg sought responses to the following consultation question:

Q.6 Do you agree with ComReg's proposed reflection in the Numbering Conditions Document of consequential amendments to Appendix 11 "Definitions" arising from the EECC? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/28

114 Those respondents who responded specifically to this question agree with the proposed text.

ComReg's Assessment

115 In light of ComReg's preliminary position and respondents' comments, ComReg confirms its position that minimal amendments need to be made to Appendix 11 ("Definitions") of the Numbering Conditions document arising from the EECC. ComReg will therefore carry out these amendments.

3 Implementation of the new Non-Geographic Number platform

3.1 Introduction

- 116Non-Geographic Numbers (NGNs) are phone numbers beginning with 1800, 1850, 1890, 0818 and 076. These numbers are used by organisations to provide services such as helplines, public services, and banking.
- 117 In 2018 ComReg introduced measures to improve the NGN platform in Ireland.¹⁵ ComReg's NGN Decision Instrument D15/18¹⁶ ("NGN Decision") set out two measures to address the high cost of using NGNs and to tackle the widespread confusion about the five different NGN ranges. The NGN measures are:
- i. **Geo-linking Condition:** Since 1 December 2019, a call to an 1850, 1890, 0818 or 076 NGN costs no more than the cost of calling a landline number. If landline calls are included in your "bundle of call minutes" then NGN calls are also "in bundle". No separate charge applies for any NGN call (unless you have used up or do not have a bundle of call minutes).
- ii. **NGN Consolidation:** The five NGN ranges (1800, 1850, 1890, 0818 and 076) will reduce to two (1800 and 0818) by 31 December 2021. From 1 January 2022, only the 1800 and 0818 NGN ranges will remain in operation.
- 118 The Geo-linking Condition was reflected in the 2019 update of the Numbering Conditions.¹⁷ Calls to 1850, 1890, 0818 and 076 are now included in call bundles that include calls to landline or, out of bundle, cost no more than calling a landline.
- 119 The Numbering Conditions document and NGN Decision now need to be updated to cater for the introduction of NGN Consolidation.
- 120 Since early 2019, ComReg and industry have met regularly at the NGN Working
- 121 Group (NGN WG) to plan the implementation of the NGN measures. Consensus has been reached at the NGN WG on several NGN issues and these now need to be formalised. Other NGN-related items arising from NGN WG discussions will also be addressed in this Numbering Conditions and NGN Decision update.

¹⁵ ComReg Document 18/106: Review of Non-Geographic Numbers, Response to Consultation 18/65 and Decision.

¹⁶ See Annex 1 of ComReg Document 18/106

¹⁷ ComReg Document 15/136R2: Numbering Conditions of Use and Application Process Document

- 122 In ComReg Document 21/28¹⁸ ("Consultation 21/28") the NGN issues were described and amendments to the Numbering Conditions and the NGN Decision were proposed. The issues were:
 - Numbering for Public Protection and Disaster Relief (PPDR) Services
 - Utility emergency contact numbers
 - International access to 1800 numbers
 - Number Changes Obligations on Operators
 - Customer Validation Condition of Use
 - Reseller Services
- 123 The following sections present ComReg's proposals on these issues, the submissions received to Consultation 21/28, and ComReg's assessment and next steps.

3.2 Numbering for PPDR Services

Summary of ComReg's view in Consultation 21/28

- 124 In Ireland Public Protection and Disaster Relief (PPDR) services use the TErrestrial TRunked Radio (TETRA) system. The TETRA network facilitates communications between different State agencies including the Gardaí, the Irish Coast Guard, fire services and ambulance services.
- 125 TETRA is a cellular mobile technology. The current generation of TETRA is based on the Global System for Mobile Communications (GSM) technology and the next generation of TETRA will be based on Long Term Evolution (LTE) technology.
- 126 TETRA services in Ireland currently operate in the 076-number range. When ComReg made the NGN Decision in 2018, it was envisaged that these services would continue to require use of the 076 range. Therefore, the NGN Decision provided for the continued use of 076 numbers by the emergency services beyond 31 December 2021.

¹⁸ ComReg Document 21/28: Review of the Numbering Conditions of Use and Application Process - Consultation

- 127 However, recent engagements with the Office of the Government Chief Information Officer (OGCIO), and discussions at the NGN WG on potential public-facing usage scenarios and ongoing technology developments, now indicate that mobile numbers are more suitable for PPDR services in the longer term.
- 128 In terms of the transition from 076 to 089 mobile numbers for PPDR services, ComReg noted in Consultation 21/28, that:
 - a smooth transition to mobile numbers for PPDR services is important.
 - the 089 mobile number range is already open on fixed and mobile networks.
 - a three-month transition period, as suggested at the NGN WG, was excessive, given that consensus had already been reached and because Mobile Number Portability (MNP) is not a factor.
 - operators should be pragmatic and plan for the transition as soon as possible.

129 ComReg proposed that:

- the 089-number block proposed for PPDR services should be open for routing on all fixed and mobile networks by 30 September 2021.
- there should be a period of parallel running of 076 and 089 numbers for PPDR services, before PPDR services would switch over to 089 numbers fully. This period of parallel running should run from 31 October 2021. The intervening month (September October 2021) would provide time for OGCIO to complete its testing programme for PPDR services.
- 130 ComReg also suggested that it would simplest for industry to cease operation of 076 numbers for PPDR services on the same date as the cessation of other 076 services i.e. from midnight on 31 December 2021.
- 131 ComReg sought views on PPDR transition arrangements and on the following proposals:
 - ComReg to assign the first block of numbers in the 089 3 range, i.e. 0893000000 to 0893099999 (100k numbers) to OGCIO
 - ComReg to assign a Mobile Network Code (MNC) and Terrestrial trunk radio Mobile Network Code (T)MNC to OGCIO
 - ComReg to assign the mobile number portability routing prefix 176 70 to OGCIO and
 - ComReg to revise the text of part (ii) of the NGN Decision to remove the text at the beginning of the clause referring to 076, as follows:

With the exception of the 076 numbers used to provide emergency services, and Save for any exceptional circumstances as ComReg shall determine, all rights of use for Non-Geographic Numbers in the ranges 1850, 1890, and 076 shall be withdrawn from all undertakings to whom such rights of use were granted at midnight on 1 December 2021 and from the date of this decision no new rights of use for Non-Geographic Numbers in the ranges 1850, 1890, and 076 shall be granted to any undertaking. All rights of use for Non-Geographic Numbers in the ranges 1800 and 0818 shall remain in effect and new rights of use for numbers in those ranges may be granted to any authorised undertaking which applies for same.

- ComReg to reflect the revised text of part (ii) of the NGN Decision in Section 4.2 of the Numbering Conditions.
- ComReg to add the following underlined amendment to Section 6.2 (2) "Eligibility Criteria" of the Numbering Conditions:

Rights of use for Mobile Numbers and MNCs shall only be granted to MNOs and MVNOs, <u>OGCIO for Public Protection and Disaster Relief</u> <u>(PPDR)</u> services and to OTT Service Providers, provided the OTT Service Provider qualifies as an ECS, and the OTT Service Provider has a contract with an Irish MNO to access its network. A right of use for one MNC shall be granted upon first application and the basis for any request for an additional right of use for an MNC must be fully set out.

• ComReg to insert the following paragraphs to the RoU Conditions in Section 5.7 "Mobile Network Codes" of the Numbering Conditions:

(4) Terrestrial trunk radio Mobile Network Codes ((T)MNCs) shall be 4digit short codes and their structure and use shall conform with ITU-T Recommendation E.218.

(5) (T)MNCs shall be used only in TETRA networks.

(6) A (T)MNC shall be inserted after the (T)MCC "272" as part of the Individual TETRA Subscriber Identity (ITSI).

132 ComReg asked the following question:

Q.7 Do you agree with ComReg's proposal for PPDR Numbering? Please explain the basis for your response in full and provide supporting information.

133 Below ComReg summarises the submissions received and presents its assessment and next steps for numbering for PPDR services.

Views of respondents to Consultation 21/28

- 134 Eight respondents agree with ComReg's proposal to move PPDR services to 089 mobile numbers (ALTO, BT, Eir, OGCIO, Tesco Mobile, Three, Virgin Media and Vodafone).
- 135 BT submits that it would be more efficient to close the 076 range completely, so it can be set aside for future use, rather than keeping small parts of it open, which could confuse customers in any future use of the range. BT also notes this is an opportune time to switch the numbering as it aligns with a refresh of the PPDR technology being used.
- 136 Some operators (Eir, Vodafone, Three) raised concerns about the timeline for opening routing for the 089-number block for PPDR services.
- 137 Eir submits that it cannot commit to the proposed deadline of 30 September 2021 to open the 089 range for PPDR as the work cannot be planned and scheduled until after ComReg has made its Decision and allocated the numbering resources.
- 138 Eir asks for clarification on the agreed industry lead-time for opening new number blocks and submits that it is not possible to mandate a three-week lead-time.
- 139 The OGCIO welcomes the proposal to assign 089 numbers to PPDR services. OGCIO submits that this will ensure that the voice interconnects with the wider telephony network will continue to operate. OGCIO also notes that the timescales proposed are ambitious but should allow for the full migration from 076 to 089 numbers. OGCIO indicates that the complexity of migrating PPDR terminals to mobile numbers requires careful planning and implementation.
- 140 OGCIO submits that the migration to 089 numbers by the end of 2021 heavily depends on having the 089 numbers fully routable by 30 September 2021. OGCIO is committed to dedicating resources to establish the parallel running of 076 and 089 numbers for PPDR as quickly as possible.
- 141 Tesco Mobile acknowledges that OGCIO is currently dealing with a number of higher priority projects (e.g. related to supporting communications in new vaccination centres) but submits that, if 076 numbers are to be used for PPDR beyond 31 December 2021, any limited exception due to the Covid-19 pandemic should be made subject to a similar '2 year extension and review' process as that proposed for utility emergency contact numbers. Tesco Mobile suggests that clarity should be provided to operators as soon as possible, and no later than 1 October 2021.

- 142 Three supports the proposal to replace 076 numbers for PPDR services with an 089 3 mobile number block but submits that the effort required to implement this change has been underestimated. Three notes that a three-month period for network preparations was flagged at the NGN WG. Three also indicates that while the 089number range is currently built on networks, it is built to operate as an existing mobile range operated by a commercial network operator. Three submits that it will be necessary to undo any existing build and "carve-out" the new 089 number block for the OGCIO. Three submits that this is completely different to the effort required to add a new block to an existing build and will require a significantly longer period. Three suggests that it can take up to a year for all operators to complete the process of opening numbering with a new build (e.g. 088 numbers).
- 143 Three further submits that no formal assignment of the number block can occur until ComReg has issued a Decision. This is normally a prerequisite for the commencement of work to open a number block. Three submits that the timetable for the transition of PPDR services to 089 numbers is at risk, and that ComReg should consider delaying the transition to 2022.
- 144 Vodafone's technology team has concerns on the timescales proposed for the implementation of an 089 block for PPDR services. It considers that six months from a final decision is needed for design and implementation of the changes. Vodafone also submits that ceasing the 076 range at end of calendar year when most networks are in a "lockdown", would be unwise and recommends that the end of parallel working be extended by three months, to the end March 2022. Vodafone submits that this would allow for appropriate testing of the changes to networks before access to 076 is shut-off.
- 145 Virgin Media suggests that a full set of industry instructions should be issued as soon as possible after a final decision is made.

ComReg's Assessment on Numbering for PPDR services and next steps

- 146 ComReg has considered the submissions relating to PPDR services.
- 147 Regarding the standard industry lead-time for opening new number blocks, the Fixed Number Portability Industry Process Manual (IPM) Version 3.0 8th April 2020 states (Section 5.6):
 - "...

3. Following discussion within industry on the practicality of updating some operator networks, the maximum timescale to allow all operators to build new allocations on their network is three "3" weeks.

...

6. Once the block activation has occurred operators have three weeks to build routing for the numbers on their own network. Block Holder Operators should not allocate numbers for such blocks to customers until the three week build time has expired as this may lead to routing problems for such numbers."

- 148 ComReg also notes that Open Eir's Interconnect Operations and Maintenance Manual states, in Section 8.1.1.5, that *"open eir shall implement the opening of the requested range within three (3) weeks of the acknowledgement of the receipt of the request."*¹⁹
- 149 ComReg has considered the views in relation to "carving out" the 089-number block, the implementation work required, the importance of clear instructions to industry and the cessation date for parallel running.
- 150 Notwithstanding Three's comment that "carving out" the 089 number block for OGCIO use requires a longer period than the 3 weeks required to open up a new block, ComReg acknowledges that there may be additional tasks but these are not likely to be as complex as a new number range build. ComReg does not accept that opening the 089 3 number block would take three months. Firstly, MNP is not a factor as the OGCIO has confirmed that the portability of 089 numbers is not required. Although all 08X number ranges are presently included in the MNP system, individual number blocks can be excluded. Safeguards are in place in the MNP system to ensure that accidental porting of such numbers would not occur.
- 151 Secondly, routing is straightforward. Connectivity between the TETRA network and public fixed and mobile networks will be facilitated through peering / interconnect arrangements with Government Networks. ComReg understands that all three mobile operators and Eir already have such arrangements in place with Government Networks. The OGCIO has indicated that it will consider peering with any network operator in Ireland.
- 152 Finally, there are no termination charges. The OGCIO does not charge a termination rate for calls terminating on Government Networks or on the TETRA network. The OGCIO has confirmed there are no plans to change these arrangements.
- 153 By publishing the revised NGN Decision in July 2021, operators have more than two full months to carry out the necessary work to open the 089 3 number block on their networks and to ensure that routing is put in place.

¹⁹ See <u>https://www.openeir.ie/wp-content/uploads/2020/04/Interconnect-Operations-and-</u> Maintenance-Manual-V4.0-260617.pdf

- 154 ComReg has also considered the proposed cessation date for PPDR services on 076 numbers. NGN Consolidation means that 1850, 1890 and 076 numbers will cease at midnight on 31 December 2021.
- 155 ComReg considers it best to close the 076 number range completely by ceasing PPDR services on 076 numbers from the 31 December 2021 too. This will avoid creating additional confusion, provide clarity to the industry, OGCIO and callers, and simplifies implementation for operators. ComReg notes the OGCIO's comment that these timescales will allow for the full migration from 076 to 089 numbers. It is crucial, however, that all operators have the necessary routing in place by 30 September 2021 and parallel running from 31 October 2021.
- 156 ComReg has considered all the relevant issues and decides that an 089-number block should be made available for PPDR services. This will future proof the service in Ireland and cater for new usage scenarios and technology developments.
- 157 Several respondents raised the practicalities of implementing NGN Consolidation on 31 December 2021. This has also been raised in the NGN WG.
- 158 From mid-December until early January networks typically implement network freezes and minimise changes to their networks over the Christmas period. Staff availability around New Year's Eve/New Year's Day has also been flagged as an issue.
- 159 ComReg acknowledges the issues but reminds operators that it has consistently communicated the NGN deadline as 31 December 2021. ComReg also notes no issues relating to the NGN Consolidation implementation date being raised in advance of the adoption of the NGN Decision in 2018.
- 160 ComReg is determined to minimise confusion in the run up to the NGN deadline. Therefore, in the interests of ensuring clarity to consumers, businesses, Service Providers (SPs) and operators, ComReg confirms that the NGN Consolidation deadline of 31 December 2021 stands. As per the NGN Decision, from midnight on 31 December 2021, the 1850, 1890 and 076 numbers will be withdrawn. From 1 January 2022 only the 1800 Freephone and 0818 Standard Rate numbers will remain in operation.
- 161 For the avoidance of doubt, calls to PPDR numbers will be treated no differently from a retail charging perspective to calls to mobile numbers. Any retail call bundles that include calls to mobile should also include calls to PPDR mobile numbers.
- 162 The NGN Decision and the Numbering Conditions are now updated in line with the proposals set out in Consultation 21/28. The amendments to the NGN Decision are as set out in the Decision Instrument in Annex 1 and the revised Numbering Conditions in ComReg Document 15/136R3 are published alongside this document.

- 163 ComReg will, on receipt of the completed applications from OGCIO:
 - Assign the first block of numbers in the 089 3 range, i.e. 0893000000 to 0893099999 (100k numbers) to OGCIO for use by PPDR services
 - Assign a Mobile Network Code (MNC) and Terrestrial trunk radio Mobile Network Code (T)MNC to OGCIO
 - Assign the mobile number portability routing prefix 176 70 to OGCIO and
 - Notify operators of the assignments to OGCIO as soon as they are completed and allow operators to open these numbers on their networks.

Transition arrangements

- 164 Upon notification from ComReg of the assignment of the mobile numbering resources to the OGCIO, all fixed and mobile network operators are required to take the following actions:
 - i. Open the full 100k number block (numbers from 089 000000 to 089 3099999 inclusive) assigned for PPDR services without delay
 - ii. Ensure that routing is in place for the full 100k number block (from 089 000000 to 089 3099999 inclusive) for PPDR services by 30 September 2021
 - iii. Ensure the parallel running of 076 and 089 numbers for PPDR services from 31 October 2021 until 31 December 2021.

The requirement for parallel running is now also included in the NGN Decision, as amended by the Decision Instrument in Annex 1 of this Response to Consultation.

3.3 Utility Emergency Contact Numbers

Summary of ComReg's view in Consultation 21/28

- 165 The 1850, 1890 and 076 number ranges will be withdrawn from midnight on 31 December 2021. A small number of 1850 and 1890 numbers in use by utilities (electricity, gas and water) as emergency contact numbers are displayed on a significant number of assets throughout the country, and new signage/labels showing replacement numbers will not fully be in place by the end of 2021.
- 166 ComReg discussed with industry and the utilities how to manage these numbers as part of the NGN implementation, in view of the upcoming NGN consolidation deadline at the end of 2021.

- 167 At the NGN WG in September 2020, a consensus was agreed to extend the operation of six numbers, bound by specific criteria, by two years beyond the NGN Consolidation deadline of 31 December 2021 (to 31 December 2023). Any further extension to the operation of these numbers would be preceded by an evidence-based review process to be completed by ComReg before 31 December 2023.
- 168 In Consultation 21/28 ComReg proposed to amend the NGN Decision to add the following text:

Utility	Emergency contact number
ESB Networks (ESBN)	1850 372 999
Gas Networks Ireland (GNI)	1850 20 50 50
	1850 42 77 47
	1850 211 615
Irish Water (IW)	1850 278 278
	1890 278 278

The following numbers shall remain in operation until 31 December 2023:

Figure 1: Emergency contact NGNs in use by utilities

- 169 ComReg sought views on the proposed extension for these utility numbers and asked the following questions:
 - Q. 8 Do you agree with ComReg's proposal to extend the operation of the utility emergency contact numbers in Figure 1 until 31 December 2023? Please explain the basis for your response in full and provide supporting information.
 - Q.9 Do you agree with ComReg's proposal to conduct an evidence-based review in 2023 to determine if any further extended operation of any of the NGNs in Figure 1 is needed? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/28

Proposed extended operation for utility emergency numbers (Q.8.)

170 Nine respondents (ALTO, BT, CRU, Eir, GNI, OGCIO, Tesco Mobile, Three, Virgin Media) agreed with the proposal to extend the operation of the six utility numbers to 31 December 2023.

- 171 ALTO submits that there may be an education issue about end user migration from the 1850, 1890 and 076 ranges.
- 172 BT agrees with the proposed extension for the six numbers listed in Figure 1 of Consultation 21/28, as well as the HSE Covid-19 number. However, BT submits that no further 1850 numbers should be added to this limited set as the incentive should be to close the 1850 range fully. BT also submits that wholesale pricing for the extended 1850 numbers should be maintained on a fair and reasonable basis (considering potentially high level of traffic on some numbers).
- 173 The CRU notes that ComReg's proposals for withdrawing the specific 1850 numbers would not come into effect until the end of 2023 and the 1850 numbers would run in parallel with replacement Freephone numbers until then. The CRU notes that this should allow utility providers enough time to rebadge their assets with new numbers. The CRU suggests that the proposed announcements to be run after parallel running ends should be outlined before the extension is formally agreed.
- 174 Eir submits that specific circumstances apply to the six numbers identified for extension (safety of life, 'advertised' on physical assets across Ireland and infeasible to replace the advertisements before 31 December 2021). Eir also notes that the utilities have already commenced implementing replacement numbers.
- 175 Eir submits that any further requests to extend 1850 / 1890 numbers should be carefully scrutinised and ComReg must present objective justification if any extension is to be allowed.
- 176 GNI submits that the risk associated with a caller being unable to get through in the event of an emergency cannot currently be shown to be as low as reasonably practicable. GNI also notes that changing the numbers on the relevant assets outside of the normal replacement lifecycle would incur significant cost that would be disproportionate on gas consumers.
- 177 GNI submits that a two-year extension should provide sufficient time to establish consumer behaviour in relation to transitioning to new numbers and should allow the risks of terminating the "old" NGNs to be established. GNI suggests that the NGNs should only be terminated when it has been shown that the risks associated with doing so are As Low As Reasonably Practicable (ALARP).
- 178 Three submits that 31st December 2023 is not a suitable date for the implementation of number changes as it falls within the annual mobile network freeze. Three suggests that ComReg should amend the cessation date by either bringing it forward or backward by 1 month.

- 179 Vodafone submits that the preservation of a small quantity of NGN numbers will add complexity and considerable cost, and that maintaining these numbers going forward will also have a cost as they will need to be tested separately during future network changes. Vodafone accepts the rationale for their temporary extension but suggests that ComReg works with all parties to have them removed in as short a time as possible.
- 180 Virgin Media suggests that ComReg informs providers as soon as possible if any other numbers are to be added to the list and that a final definitive list is published in the final decision.

Proposed evidence-based review (Q.9.)

- 181 Seven respondents agreed with the proposal to conduct an evidence-based review in 2023 to determine if any further extended operation of any of the utility contact numbers is needed (BT, CRU, Eir, GNI²⁰, OGCIO, Tesco Mobile, Vodafone).
- 182 ALTO and BT submit that it is very inefficient for industry to keep a whole number range open for just six/seven numbers and mentions concern about the lack of regulatory framework around these numbers. In terms of any potential extension of numbers beyond 2023, ALTO and BT submit that the utilities should demonstrate to ComReg that they are progressing the rollout of signage on poles and utility meters.
- 183 The CRU suggests that, following the extension, there should be a review process to analyse the number of calls continuing to be made to 1850 numbers. The CRU submits that the final decision to withdraw the 1850 emergency numbers should only be made after a comprehensive review of call volumes and call types in a defined period following the 2021 withdrawal of the ranges. The CRU also submits that if a significant number of calls are still being received on the 1850 numbers during the review period there may be a case for a stay on the withdrawal or other mitigations being put in place.
- 184 The CRU suggests that the format of the review process should be decided before an extension to the 1850 numbers is approved. The CRU also suggests that the review should be based on a safety risk analysis following ALARP (As Low as Reasonably Practicable) or similar principles.
- 185 Eir submits that an evidence-based review would provide a necessary evidence base in any future consultation to amend the NGN decision.

²⁰ Conditional agreement "provided that the evidence-based review is conducted in accordance with the CRU ALARP Guidance"

- 186 GNI supports the proposal to conduct an evidence-based review in 2023, provided that the review is conducted in accordance with the CRU ALARP guidance. GNI submits that a Quantitative Risk Assessment, potentially combined with a Cost Benefit Analysis, would meet these requirements. In GNI's view this would allow ComReg and the affected utilities to demonstrate that the duties imposed under relevant safety legislation and the decision, and any costs arising from it, are proportionate.
- 187 OGCIO indicates that it raised the issue of similar numbers in use by the HSE for the provision of health services to Irish citizens at the NGN WG. Given the Covid-19 pandemic, OGCIO submits that it is of national importance that the usage of such numbers is addressed. OGCIO suggests that ComReg contacts HSE directly.
- 188 In its response, the HSE indicates that it has identified a total of 92 1850/1890 numbers in use but submits that it has not made progress on the number change due to the Covid-19 pandemic. It has commenced migration of its numbers and is aiming to complete the migration of 70 of its numbers by the 31 December 2021 deadline if possible. The HSE requested that the operation of the remaining 22 NGNs, which have high visibility across acute and Community Health, be extended for the same period as the identified Utility numbers. The HSE also notes that it also has a block of 0761 numbers for Direct Dial Inwards (DDI) across the South and South East.
- 189 Tesco Mobile submits that the details of the review framework should be finalised by the end of 2021.
- 190 Three submits that a definite end-date for the use of the utility numbers should be adopted as this would provide certainty for all parties concerned.
- 191 Vodafone suggests that a review should be completed in 2023 to determine if a further extension should be granted.
- 192 Virgin Media suggests that regular updates from the relevant utility operators should be provided to ComReg from the end of 2021 (e.g. every quarter). Virgin Media submits that it is important these companies continue to progress making the necessary changes to meet the proposed end date of 31 December 2023. Virgin Media suggests that if a decision is made in relation to any further extension, it should only be 3-6 months in length, with monthly reviews thereafter.

ComReg's Assessment and Next Steps

Proposed extended operation for utility emergency numbers

193 ComReg has considered the submissions relating to the utility emergency numbers.

- 194 The NGN Decision was adopted to address widespread confusion about the different NGN ranges and to address the high cost of calling NGNs. NGN Consolidation will reduce the number of NGN ranges from five to two (1800 and 0818).
- 195 ComReg considers the relevant 1850/1890 utility numbers an exceptional case, given the nature of the numbers as emergency/safety numbers and the prevalence of the numbers on a large quantity of assets.
- 196 However, ComReg reiterates its view that Freephone numbers are more suitable for callers in emergency/safety situations as they do not rely on callers having sufficient call credit or the financial capacity to pay for a call.
- 197 ComReg considers it important that the relevant utility contact numbers be replaced with Freephone numbers as soon as possible and welcomes the fact that some of the utilities are already advertising Freephone emergency contact numbers on their websites. ComReg encourages the utilities to update all their communications materials, signage and vehicles with these Freephone numbers without delay.
- 198 Concerning BT's suggestion to maintain wholesale pricing for 1850 unchanged, ComReg confirms that no wholesale pricing changes are planned for 1850 or 1890 numbers.
- 199 In relation to ALTO's suggestion for education on end user migration from the 1850, 1890 and 076 ranges, ComReg reminds industry that NGN operators are the direct link to 1850, 1890 and 076 customers and operators are required to inform those customers of the need to switch to new numbers.
- 200 The NGN Decision provided a three-year transition period for NGN Consolidation, to ensure enough time to communicate the changes and switch 1850, 1890 and 076 customers to new numbers.
- 201 Two years ago, in June 2019, ComReg published an industry-agreed Implementation and Communications Plan²¹ which included communications tasks for operators. As detailed in the Plan, operators should have been communicating to their 1850, 1890 and 076 customers since 2019. In August 2020 ComReg wrote to all NGN operators and reminded them of their obligations in relation to their 1850, 1890 and 076 customers, to inform those customers of the upcoming withdrawal of those ranges and of the need to switch number.

²¹ <u>ComReg 19/65</u>: Information Notice on Implementation of Decision D15/18 on Non-Geographic Numbers (NGNs) - Implementation and Communications Plan and ComReg 19/65a: Analysys Mason Document - Implementation and Communications Plan

- 202 ComReg has consistently emphasised, at the NGN WG, the importance of operators informing and looking after their 1850, 1890 and 076 customers. ComReg is very concerned that some operators have not communicated with all 1850, 1890 and 076 customers in a timely manner. These operators urgently need to address this situation to ensure their customers are not disrupted or worse, disconnected, because of the withdrawal of the 1850, 1890 and 076 ranges at the end of 2021. ComReg reiterates that it is simply good business practice for operators to look after customers properly and help them in the switch to new numbers.
- 203 ComReg has been strongly recommending to operators that 1850, 1890 and 076 customers switch to new numbers by end October 2021, to ensure that their callers can be made aware of new numbers in time, to ensure a smooth transition to the new NGN platform and to avoid disruption at the end of 2021.
- 204 ComReg has also run several communications campaigns on the NGN changes through digital and social media, a national print ad and ComReg press releases. ComReg also plans further NGN communications campaigns this year, including radio and further print ads.
- 205 However, it is important to note that ComReg's communications are not a replacement for operators' communications. Operators must communicate directly with their 1850, 1890 and 076 customers, explain their options in terms of obtaining new numbers and assist them in making the switch.
- 206 Given there is less than six months to the NGN Consolidation deadline, NGN operators must immediately engage with all 1850, 1890 and 076 customers to ensure there is no interruption to business continuity in the run up to the NGN Consolidation deadline at the end of 2021. The number of 1850, 1890 and 076 customers is low and account managers must contact each customer directly. Direct and follow-up communications are needed, so that 1850, 1890 and 076 customers know what to do to switch number and to ensure those customers are switching to new numbers.

Proposed evidence-based review (Q.9)

- 207 In Consultation 21/28 ComReg proposed conducting an evidence-based review to decide whether any further extension to the operation of any of the utility emergency numbers would be needed.
- 208 ComReg has considered the submissions on this issue.
- 209 ComReg notes industry concerns about the cost and complexity of leaving numbers in operation beyond 31 December 2021, requests for clarity on the ultimate cessation date and time limitations on extensions to the relevant utility numbers. ComReg also notes there are costs to the utilities in terms of updating the relevant numbers on assets.

- 210 ComReg does not plan to extend the operation of the utility emergency numbers indefinitely. Core to the NGN improvements is the elimination of consumer confusion. The NGN Decision was made in December 2018 and a three-year transition period was set down to provide time for 1850, 1890 and 076 Service Providers to switch to new numbers.
- 211 Granting a two-year extension from the end of 2021 to the utility emergency numbers effectively means that utilities have had five years (from December 2018) to migrate from 1850 and 1890 numbers.
- 212 Therefore, while ComReg is acutely aware of the nature of the utility contact numbers as emergency/safety numbers and recognises that particular care is needed in managing their withdrawal, ComReg strongly recommends that the utilities update signage, rebadge relevant assets and utility meters with alternative Freephone emergency contact numbers as soon as possible.
- 213 In terms of tracking utilities' progress in migrating from the six 1850 and 1890 contact numbers, ComReg will explore options for regular updates from the utilities in this regard.

ALARP Request

- 214 In relation to GNI's view that ComReg's assessment should meet the requirements of the CRU ALARP Guidance, and this "would allow ComReg and the affected utilities to demonstrate that the decision to terminate these NGNs and the risks arising from it are ALARP, that the decision is compliant with duties imposed under relevant safety legislation and that the decision and any costs arising from it are thus proportionate." ComReg notes the following:
 - For the avoidance of any doubt, ComReg is not required to demonstrate ALARP to any entity under legislation or guidance or otherwise.
 - The CRU ALARP Guidance (as advised by that document) is prepared by the CRU for industry participants who are required to submit safety cases to the CRU. ComReg is not responsible for any of the requirements of that document and, for ComReg, it merely provides it with an understanding of the safety requirements which the CRU place on industry in order to carry out their petroleum and gas activities in Ireland.²²
 - A decision on whether to conduct an ALARP assessment under the CRU Guidance Document is solely a matter for the CRU and/or relevant utility operators.

²² ALARP Guidance Part of the Petroleum Safety Framework and the Gas Safety Regulatory Framework (Public Interest Statement).

- ComReg's role is to determine whether emergency numbers provided over the 1850/1890 ranges should expire as planned (and signalled three years ago) or, if additional time should be provided in order to allow migration take place over a longer period.
- 215 ComReg would remind interested parties that the decision to consolidate NGNs was made in December 2018 and provided a period of three years for Service Providers (including the utility operators) to migrate to new numbers. ComReg notes that the utility operators have only recently switched to 1800 emergency contact numbers and is concerned that the old numbers may still be used in the coming period. In that regard, ComReg considers it prudent to facilitate utility operators with additional time to manage the switch to new numbers and allow for consideration of any residual risk, among other reasons.
- 216 This also provides time to collect sufficient evidence (e.g. call volumes and market research) to assess whether consumers' behaviour and engagement with the new Freephone numbers is such that a further extension would be appropriate or not. It has been necessary for utilities to begin the process of switching to Freephone ranges because for evidence to be relevant it needs to be based on the parallel running of new 1800 numbers with the legacy numbers. In that regard, ComReg notes that the Gas, Water and Electricity utilities have already switched to 1800 ranges and this provides an appropriate starting point from which evidence can be collected.²³
- 217 Therefore, ComReg determines that it would be appropriate to grant an extension beyond the NGN Consolidation deadline of 31 December 2021 for the six 1850/1890 utility emergency contact numbers.
- 218 GNI mentions the risk associated with a caller attempting to call an "old" out-ofservice emergency number and being unable to get through. In that regard, ComReg's focus is only on the risk that a person, having identified a potential incident (e.g. smells gas, sees smoke/fire and/or hears noise etc.), used the 1850 or 1890 NGN printed on the asset, failed to get through and took no other action to report it, including locating the safety number elsewhere or dialling 999.
- 219 In that regard, ComReg will rely on three broad pieces of evidence in its review:

²³ For example:

^{• &}lt;u>https://www.water.ie/contact/</u>

https://www.gasnetworks.ie/home/safety/emergency-numbers/

^{• &}lt;u>https://www.esbnetworks.ie/staying-safe/emergency-services-utilities</u>

- First, ComReg will collect data on consumers' engagement with the legacy 1850 and 1890 emergency numbers – for example an assessment of call volumes over the period of the review. This will assist in determining the extent to which legacy emergency numbers are still active and whether utilities are being contacted using legacy NGNs.
- Second, ComReg will conduct market research to determine how the public would react to not being connected to the utility having dialled a legacy NGN in the event of an incident. Such research is important in determining whether the incident would go unreported when it could have been reported had the legacy NGN been operational.
- **Third**, ComReg will consider other available evidence provided to it from interested parties.
- 220 ComReg will then determine what additional time (if any) can be provided in respect of the expiry of relevant NGNs.

Summary and Next Steps

- 221 ComReg has considered the issues raised on the proposed extended operation for the utility emergency numbers and determines that it is appropriate to grant an extension, beyond the NGN Consolidation deadline of 31 December 2021, for the six 1850/1890 utility emergency contact numbers.
- 222 In relation to the proposed cessation date of 31 December 2023, taking account of comments to avoid the end of the calendar year and December network freezes, ComReg amends the extension deadline for the six numbers to 30 November 2023.
- 223 The NGN Decision is amended to reflect this decision (see the Decision Instrument contained in Annex 1 of this Response to Consultation).
- 224 While the above decision does not require an update to the Conditions of Use for 1850/1890 numbers, ComReg will make reference in Appendix 9 "Classes of Number" of the Numbering Conditions, to the amended decision D15/18 concerning the extension of the operation of these NGNs.
- 225 ComReg will carry out a review of the six utility emergency numbers in 2023 to determine if the operation of any of those numbers should be extended further.

HSE Request

- 226 The Health Service Executive ("HSE") requested that some of the NGNs it uses to deliver certain services be provided a two-year extension similar to that proposed for utility operators²⁴ ("the HSE Request").
- 227 As noted above, the decision to consolidate NGNs was made in December 2018 and provided a period of three years for Service Providers (including the HSE) to migrate to a new number range. In that regard, it would clearly have been preferable for the HSE to have migrated services provided over NGNs in the period since December 2018.
- 228 However, ComReg is of the view that the HSE Request (even at this late stage) merits consideration given the onset of Covid-19 in the period since Decision 15/18 and the role the HSE has played in contending with same. In particular, ComReg is minded to assist the HSE given the exceptional circumstances arising from Covid-19 and HSE's role in implementing the most urgent, critical and large-scale response the health service has ever had to provide. More recently, ComReg notes "the vaccination programme against Covid-19 is being implemented by the HSE on behalf of the State".²⁵
- 229 In that regard, ComReg notes that such exceptional circumstances and the designation of the HSE by the State is unlikely to be relevant to other service providers, and any addition of the HSE to the Extended Period (which already includes utility providers) would apply to the HSE only.

Process for assessment

- 230 It is important to note that the background to the HSE request is exceptional and necessitates analysis and proposals which are unlikely to be replicated in future ComReg numbering-related consultations.
- 231 In that regard, ComReg notes that its proposals in relation to the inclusion of HSE numbers are aimed solely to address the exceptional and extraordinary situation presented to the HSE by Covid-19 and regulatory measures are required to address same. ComReg will therefore not be conducting a RIA on this occasion and the scope of the following assessment is necessarily limited.²⁶

ComReg assessment of HSE Request

²⁴ ComReg's proposal to extend the operation of the utility emergency contact numbers until 31 December 2023 ("the Extended Period").

²⁵ For example, see S.I. No. 193 of 2021 Health Act 1947 (Section 31A - Temporary Restrictions) (Covid-19) (Amendment) (No. 2) Regulations 2021.and S.I. No. 168/2021 - Health Act 1947 (Section 31A - Temporary Restrictions) (Covid-19) Regulations 2021

²⁶ For example, the RIA Guidelines also provide that situations may occur where ComReg will be required to take urgent regulatory measures, and where it may not be practical to conduct a RIA beforehand. In such situations, ComReg retains the discretionary right not to conduct a RIA where to do so would significantly delay the introduction of urgently required regulatory measures.

- 232 ComReg notes that three broad options were available to it arising from the HSE Request.
 - **Option 1** Include only Covid-19 related NGNs in the Extended Period;
 - **Option 2** Include all HSE Numbers in the Extended Period; or
 - **Option 3** Include the most relevant HSE Numbers in the Extended Period.
- 233 At the outset, ComReg recognises that the addition of more NGNs to the Extended Period is not a simple technical change. It requires operators to re-route numbers such that the more numbers that are included, the more difficult is the technical implementation.

Option 1

- 234 With that in mind, including the two main Covid-19 phone numbers²⁷ could be sufficient to address the role provided by the HSE in managing the vaccination programme and the pandemic more generally.²⁸
- 235 However, ComReg notes that it is difficult to separate the services provided in relation to the management of Covid-19 and the associated vaccination programme from other essential and interrelated services provided by the HSE at this time. For example:
 - Covid-19 has led to unprecedented interruption to normal healthcare activity, with all services affected, across both the acute and community setting.
 - A key priority for the HSE is to re-instate, maintain and enhance the delivery of health and social care services in line with the additional investment allocated this year whilst in parallel delivering Covid-19 models of care.^{29 30}
 - The planning stages of resuming clinical activity that was postponed or cancelled due to mitigation measures implemented in the context of the Covid-19 pandemic have commenced and rely on the numbering resource. ³¹

²⁷ Healthcare worker Covid-19 helpline (1850 420 420) and HSE Live Support number for vaccinations and health services (1850 24 1850)

 ²⁸ ComReg notes that the HSE Covid-19 helpline number has now changed to 1800 700 700.
 ²⁹ https://www.hse.ie/eng/services/publications/serviceplans/national-service-plan-2021.pdf

³⁰ With that in mind, a priority action for the HSE is to "work with public health guidance to resume day care centres as early as possible, and in the interim **continue to support clients by phone and outreach services** while developing innovative alternatives to traditional day care in tandem with the

community and voluntary sector". [Emphasis added] ³¹ A Safe Return to Health Services Restoring health and social care services in a COVID environment March 2021

https://www.hse.ie/eng/services/publications/serviceplans/safe-return-to-health-services-plan.pdf

- Up to 30% of all consultations (elective outpatient) will continue to take place over phone or video calls.³²
- 236 Further, ComReg notes that the HSE is also contending with a cyber security incident which has caused a significant disruption to its services³³, including³⁴ emergency departments, community health services, screening services, other health services, cyber-attack response, hospital appointments most of which have an associated NGN. Indeed, given the delay to online processing times and access to email the HSE advise consumers to contact it via phone instead.³⁵
- 237 In light of the above, ComReg considers that Option 1 would not be sufficient to appropriately deal with the issues that could arise in the management of the pandemic and its appropriate to include HSE numbers other than the Covid Helplines in the Extended Period.

Option 2 or Option 3

- 238 In relation to Option 2, ComReg notes that the HSE has approximately 90 NGNs. While it could be appropriate to add all HSE numbers to the Extended Period, ComReg is conscious that the inclusion of additional numbers is an imposition on operators and increases the risk of misrouting and/or calls not being connected.
- 239 With that in mind, ComReg has engaged with the HSE with a view to identifying numbers that involve the delivery of important services to patients. In that regard, the HSE has identified up to 30 NGNs that it considers are needed to ensure effective delivery of services in the coming period. These numbers are used to deliver a variety of services including but not limited to Covid-19, Patient Transport, Counselling and Primary Care, Out of hours Doctor and Night Doctor. ComReg continues to engage with the HSE to come to a final list of NGNs for potential extension, noting that this is unlikely to be in excess of 30 NGNs in total.
- 240 Given the current role of the HSE as described above, ComReg notes that the migration of numbers over the past 18 months is unlikely to have been practical and additional time is necessary to provide for completion of same. Therefore, ComReg's preliminary view is that it is appropriate to include these 30 NGNs in the Extended Period noting that the final number of NGNs could be less than 30 but is unlikely to be more.

³² Ibid

³³ <u>https://www.hse.ie/eng/services/news/media/pressrel/hse-cyber-security-incident.html</u>

³⁴ <u>https://www2.hse.ie/health-service-disruptions/</u>

³⁵ Ibid

241 However, ComReg notes that (unlike utility numbers) there is no expectation that a period beyond 2 years would be required and reliance on legacy numbers should decline over the duration of the Extended Period. Indeed, the HSE has already introduced a Freephone 1800 number as its Covid Helpline³⁶ and will operate this number in parallel with the 1850 number.

Stakeholder input and next steps

- 242 ComReg notes Tesco Mobile's view that any limited exception justified by the Covid-19 pandemic should be subject to a similar '2 year extension and review' process to that which is proposed regarding utility emergency contact numbers and that clarity be provided to operators as soon as possible and no later than 1 October 2021.
- 243 Noting the importance of providing operators with notice of its final Decision on this matter, in advance of 1 October 2021, including a full list of HSE NGNs that would benefit from the Extended Period, ComReg requests submissions on the issue of HSE numbers no later than close of business on 16 August 2021. Note that this further consultation is only in relation to this specific matter.
- 244 Following receipt and consideration of submissions in response to this consultation, and other relevant material, ComReg intends to publish a response to consultation together with its final Decision in relation to this specific matter.
- 245 While ComReg cannot provide further clarity on the overall timelines at this juncture, as this will depend, among other things, on the nature of responses received to this consultation, ComReg hopes to issue the above before end September 2021.

Q.1 Do you agree with the proposal to extend the operation of up to 30 NGNs in use by the HSE to 30 November 2023? Please explain the basis for your response in full and provide supporting information.

3.4 International Access to 1800 Freephone Numbers

Summary of ComReg's view in Document 21/28

246 1800 phone numbers are national Freephone numbers in Ireland.

³⁶ <u>https://www2.hse.ie/services/contact-the-hse/#register-by-phone</u>

- 247 Article 97 of the European Electronic Communications Code (EECC) requires ComReg to take all necessary steps to ensure that end-users can access, and make use of, services using non-geographic numbers within the EU, except where this is not economically feasible.
- 248 The provision of international access to 1800 numbers in Ireland had been discussed at the NGN WG but no consensus had been reached.
- 249 In Consultation 21/28 ComReg sought information on the likely economic impact of implementing international access to 1800 numbers.
- 250 ComReg asked the following questions:

Q.10 On what basis do you consider international calls to Irish 1800 Freephone numbers should be facilitated (e.g. free to call or otherwise)? Please explain the basis for your response in full and provide supporting information.

Q.11 Do you consider that the cost of implementing international access to 1800 Freephone numbers would be reasonable for your organisation? Please explain the basis for your response in full and provide supporting information, clearly presenting any associated financial costs.

Q.12 Do you foresee demand for international access to Irish 1800 Freephone numbers? Please explain the basis for your response in full and provide supporting information.

Q.13 Are there any other issues relating to the potential introduction of international access to Irish 1800 Freephone numbers that ComReg should consider? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Consultation 21/28

Facilitating calls to Irish 1800 Freephone numbers

- 251 BT submits that international calls to Irish Freephone would not be free as they would need to cover the cost of international call settlement charges and limit the risk of fraudulent or malicious activity.
- 252 Eir submits that ComReg should establish if international access to Irish 1800 Freephone numbers is economically feasible and notes that overseas operators will recognise these numbers as Dublin numbers and charge accordingly.
- 253 If international calls to 1800 numbers are to be free to the caller at the retail level, Eir submits that a mechanism is needed at the wholesale level to compensate the originating networks and the home network operator for roamers. Eir notes that this would require substantial international coordination by ComReg.

- 254 Without clarity on the application of the regulatory framework, Eir is unable to comment on what charges should apply to calls made by Irish roamers to Irish 1800 numbers from abroad. Eir is also unclear if presentation of these calls on the customer's invoice is acceptable from a public policy perspective as free calls to 1800 numbers are not currently presented on customer invoices.
- 255 Gas Networks Ireland supports the principles of allowing international access to Irish 1800 Freephone numbers so that that callers visiting or resident in Ireland who are using overseas mobile phones may easily contact, for example, utility emergency services that use 1800 numbers. GNI submits that this would apply particularly to UK/ NI mobile users in border counties and visitors/ residents in Ireland who are availing of "roaming" via an overseas mobile operator and that it would also potentially remove the requirement for organisations to provide an alternative geographic number for such callers.
- 256 Tesco Mobile submits that international roaming calls to Irish 1800 Freephone numbers should be charged on a transparent basis pending wholesale regulation of cost, where appropriate. Tesco Mobile notes that international roaming calls to Irish 1800 Freephone numbers are not subject to wholesale regulated rates.
- 257 Although Twilio supports the provision of international access to Irish 1800 Freephone numbers as it would give its customers additional capabilities, Twilio submits that there are several issues to be resolved. Twilio suggests that if international calls to Irish 1800 Freephone numbers are to be facilitated, it should be on a paid basis, given that there are likely to be costs for operators in ensuring international access and routing the international traffic on a call-by-call basis.
- 258 Virgin Media suggests that some flexibility will be needed on retail pricing for international 1800 calls, given the possible variations in processes and system set ups. Virgin Media submits that it will be important that carriers are not "out of pocket" for providing the service.

Cost of implementing international access to 1800 Freephone numbers

259 Eir submits that there may be significant development work needed on wholesale and/or retail billing systems to facilitate international access to 1800 numbers. Eir notes that changes to billing systems are non-trivial and the cost of implementing access may depend on the extent of the changes needed to Irish operators' retail and wholesale billing systems. Eir submits that there is insufficient detail on how international access to Irish Freephone numbers would be implemented and regulated, so costs cannot be considered in detail.

- 260 Tesco Mobile submits that the cost of implementing international roaming access to 1800 Freephone numbers would not be reasonable the costs outweigh the benefit and have a disproportionate effect on Tesco Mobile as an MVNO. Tesco Mobile notes that there would also likely be a resulting additional cost for Irish operators/customers.
- 261 Three agrees that in most cases it may be technically possible to route inbound international calls to Freephone numbers for termination in Ireland. However, Three submits that there are many associated complicating factors which mean that it might not be feasible in some cases. Three suggests that the Numbering Conditions should permit but not require international access to Irish 1800 numbers, but acknowledges that there are many uncertainties on charges and billing for inbound international calls to 1800 numbers.
- 262 Three submits that internationally originated calls to Irish Freephone numbers would not be free to the caller. International calls to Irish 1800 numbers will generate roaming charges. It is not feasible to pass-on these charges to call recipients and so the charges would need to be included on customer retail bills. Three seeks clarity on the application of the Roaming Regulation, to ensure no conflict between the charges and the Regulation.
- 263 Twilio queries if ComReg is considering the provision of 1800 international access outside the European Union. Twilio also submits that it is not possible to calculate the costs of implementing international access to 1800 Freephone numbers as the costs will vary according to the exact requirements imposed e.g. depending on the deadline for introducing international access to 1800, the jurisdictions to be covered and the accompanying requirements (e.g. billing and development work).
- 264 Vodafone submits that implementing international access to Irish 1800 Freephone numbers would present difficulties for operators. The 1800 range may not be open in the operators' networks in other countries and getting international operators to implement the change could be a long, slow, and uncertain process. Vodafone believes that customer care issues could arise where, for example, access to a number may or may not work depending on the mobile operator a customer is connected to in a foreign country.
- 265 Vodafone submits that it is not clear how international access to 1800 numbers would fit in with Roam-Like-At-Home (RLAH) regulations. Vodafone has previously communicated to customers that calls to 1800 will not be recorded on bills.
- 266 Vodafone submits that it is difficult to estimate costs without a detailed plan but sets out a preliminary view that a budget of €250,000 would be required. Vodafone does not believe it would be "economically feasible" to introduce 1800 international access, given the small number of calls that would likely be generated.

267 Virgin Media cannot determine if the costs would be reasonable without clarity on the solution to be implemented. Virgin Media has concerns about how the wholesale charging regime will work in practice and how it will be possible to identify and charge for calls with an originating international dialling code. If a resolution cannot be agreed, Virgin Media notes that this could mean that Irish providers may not be able to recoup the full costs of providing the service.

Demand for international access to Irish 1800 Freephone numbers

- 268 Eir has not seen any demand for international access to 1800 Freephone numbers. Eir notes other options are available to service providers including an Irish geographic number or an international Freephone number. Eir has also not noted demand for 1800 international access from businesses based on Ireland wishing to target their online advertising beyond Ireland.
- 269 Tesco Mobile does not foresee demand for international roaming access to Irish 1800 Freephone numbers because: (i) companies already publish alternate geographic numbers for 1800 numbers which can be accessed from abroad; and (ii) customers are aware and avail of this practice. Tesco Mobile submits that it would be more pragmatic to mandate the provision and promotion of alternate geographic numbers when 1800 numbers are allocated to customers.
- 270 Three is unconvinced there is any demand for international access to Irish Freephone numbers. Three notes that most utilities, banks, and service businesses direct customers towards internet-based services for support and they also provide Irish geographic alternative for customers to use if they are calling from abroad.
- 271 Twilio submits that allowing access to 1800 Freephone numbers from abroad would be beneficial to Irish business and supports opening international access to 1800 Freephone numbers. Twilio also submits that 1800 Freephone numbers should be easier to obtain.
- 272 Virgin Media believes that demand for international access to Irish 1800 numbers could potentially increase after 2021 when the NGN consolidation exercise is complete. However, Virgin Media expects that many providers will switch to 0818 numbers. Virgin Media suggests that ComReg postpones its review of 1800 international access until the data around potential customer impact/harm is clear.

Other issues

- 273 Tesco Mobile believes that the following issues should also be considered in relation to 1800 international access: (i) the call set up with the host operator; (ii) the transit routing of these calls; (iii) wholesale charging of the calls; and (iv) the fraud implications of opening this number range.
- 274 Twilio supports the introduction of international access for 1800 Freephone numbers but believes that the issue is complex and there are several issues to further consider, particularly around the implementation timing, costs, consequences of granting such access, and demand. Twilio believes that a separate consultation on this topic is required to explore costs and demand and to ensure that all technical considerations have been considered.
- 275 Virgin Media suggests that from a technical perspective there is a viable solution that could work i.e. the call would come in from international providers as '1800 xxx' without any prefixes. A temporary prefix (00353) could be added if there is a conflict with another similar number in an alternative jurisdiction. This temporary prefix would then need to be dropped before the call terminates. Virgin Media suggests that ComReg would need to ensure that directions on this are distributed internationally. An alternative option suggested by Virgin Media is that ComReg could set up a dedicated international free phone number range from an unused range, e.g. 080xxxx. However, Virgin Media notes that, while this would be simpler to implement at an operator level as the calls would be easy to identify, there would still be challenges as regards charging and providers would have to be able recoup the costs of providing the service.
- 276 Virgin Media suggests that ComReg should monitor the number of service providers that switch number from 1890, 1850 and 076 to 1800 (rather than 0818) after the end of 2021. If there is a significant increase in the number of active 1800 numbers in comparison to pre-2019 levels, then this issue should be revisited at that time. Virgin Media also suggests that ComReg could undertake a business survey to determine what proportion of businesses using 1800 also have an alternative number for customers dialling from abroad. Virgin Media believes that the issues around internationalisation of 1800 numbers are complicated and difficult to resolve so a clear basis for any change to the current situation is necessary.
- 277 Vodafone submits that some service providers may rely on 1800 numbers being available rather than giving an alternative geographic number to customers.

Announcements

- 278 Virgin Media does not believe that there can be a requirement for 'pre call announcements' as international calls to 1800 will be made from fixed lines and from roaming mobile (and possibly non-roaming) customers. The customers who dial these numbers may reside in other jurisdictions and Irish operators have no control over how they are charged.
- 279 Eir asks who would be responsible for pre-call announcements and submits that if it is to be the originating operator, there is the problem of how overseas operators could be compelled to do this. Eir submits that the terminating operator would not be able to look after announcements as it would require analysis of the calling party number or awareness that an Irish mobile customer was roaming.
- 280 Three has doubts about whether it would be feasible to introduce pre-call announcements to alert users in these call cases.

Consumer impact

- 281 Three agrees in principle that international 1800 calls should appear on customer bills but understands that other operators may have a different view.
- 282 Virgin Media is unclear if a customer impact/harm has been evidenced and notes that companies using 1800 numbers often also provide an alternative contact number for customers dialling from abroad. Virgin Media submits that the issues around the international accessibility of 1800 appear to be well known and businesses have found simple solutions for customers.
- 283 Vodafone believes the introduction of 1800 international access would be counter to the clarity and simplicity the recent changes to NGN numbers sought to bring.

ComReg's Assessment and Next Steps

- 284 ComReg notes some limited support for the introduction of 1800 international access (GNI and Twilio). However, ComReg also notes that some operators have not seen any demand for 1800 international access. There are alternative options available to organisations in Ireland for callers abroad to contact them on e.g. via geographic numbers or international Freephone numbers.
- 285 ComReg recognises the need for clarity on wholesale and retail charging, on potential implementation costs and on the application of Roam-Like-At-Home (RLAH) principles. ComReg accepts that is not possible to carry out an economic assessment on the cost of introducing 1800 international access without full detail of how such access would work.

- 286 In view of the many complexities and uncertainties identified by respondents to Consultation 21/28, and low demand, ComReg has decided not to proceed with the introduction of 1800 international access at the present time. Moreover, ComReg considers it crucial to avoid creating consumer confusion at a time when the overall NGN platform is being simplified.
- 287 ComReg will keep abreast of developments at a European level (at the European Commission and in BEREC) in relation to the Roaming Regulation and the application of Roam-Like-At-Home principles.
- 288 Operators should inform their 1800 customers that 1800 numbers are national Freephone numbers only and, if international access is required, to advise them of alternative number options that support this (e.g. geographic numbers or international Freephone numbers).
- 289 Looking ahead, ComReg is mindful of the need for flexibility to cater for future innovation and market developments. ComReg may therefore revisit the provision of international access for 1800 Freephone numbers at a later stage. The economic viability of 1800 international access will very much depend on the level of demand. Therefore, an assessment of demand will be a prerequisite in determining if further work is warranted.

3.5 Number Changes – Obligations on Operators

- 290 The obligations on operators to provide support services to customers during number changes are set out in Section 3.1 (8) of the Numbering Conditions (General Authorisation conditions). These conditions were intended to cater for a scenario such as the expansion of a number range, by the addition of a digit(s) to end-user numbers.
- 291 The withdrawal of the 1850, 1890 and 076 NGNs, under NGN Consolidation, means that Service Providers ("SPs") using these NGNs need to switch to new numbers, as these NGN ranges will cease to operate from midnight on 31 December 2021. The current Numbering Conditions obligations do not fully address the scenario where there is a need to migrate customers to new numbers in time.

Summary of ComReg's view in Consultation 21/28

292 In Consultation 21/28 ComReg proposed adding a new Section 3.1(9) to the Numbering Conditions to cater for the cessation of number ranges, as follows:

<u>Ceasing of Number Ranges – Undertakings shall inform their customers of any</u> requirement to change number sufficiently in advance of the ceasing of the number range, and undertakings shall take appropriate measures in respect of such number changes to include the following:

a) there shall be a period following the provision of a new number and before the ceasing of the number range during which the customer can use the original number or the new number and the charge for calling the original number shall remain the same while the cost of calling the new number shall be the operator's published rates for calling that number;

b) when the period of parallel running of the original and new number ends, or after the ceasing of the number range, in-call announcements shall be put in place to inform callers that (1) the original number has been replaced and is no longer in use, and (2) make adequate provision to direct the caller to the new number; and

c) there shall be no charge whatsoever for any call made to a number which has been replaced and is no longer in effect.

- 293 ComReg indicated that informing customers 'sufficiently in advance' varies from case to case and should be made clear to industry as part of any Decision to cease number ranges.
- 294 For NGN Consolidation, the NGN Decision D15/18 gave a three-year notice period before the cessation of 1850, 1890 and 076 ranges. This transition period was to ensure that SPs could secure new numbers in a timely manner, run those numbers in parallel with old numbers, and minimise changeover costs.
- 295 ComReg raised concerns that some operators have not made best use of the threeyear notice period to inform 1850, 1890 and 076 customers of the upcoming withdrawal of those ranges.
- 296 In terms of making 'adequate provision to direct the caller to a new number', ComReg asked respondents to consider if an update to the National Directory Database to include SP details and NGNs could be part of the solution.
- 297 ComReg also sought views on proposed announcements for callers to 1850, 1890 and 076 numbers from 1 January 2022, as follows:

"You have dialled an 1850 number. 1850 numbers are no longer in service. Please check the number you are calling. You have not been charged for this call." "You have dialled an 1890 number. 1890 numbers are no longer in service. Please check the number you are calling. You have not been charged for this call."

"You have dialled an 076 number. 076 numbers are no longer in service. Please check the number you are calling. You have not been charged for this call."

298 ComReg asked the following questions:

Q. 14 Do you agree with ComReg's proposed text for the Numbering Conditions to take account of operator obligations arising due to the ceasing of number ranges? Please explain the basis for your response in full and provide supporting information.

Q. 15 Do you have any views on the format of recorded announcements? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/28

Numbering Conditions proposal (Q.14)

- 299 Several operators agreed with the proposed text for the numbering conditions to take account of operator obligations arising due to the ceasing of number ranges (BT, Tesco Mobile, Three).
- 300 BT submits that the closure of the current 1850, 1890 and 076 ranges depends on Service Provider behaviour and that the inertia to migrate is more difficult to manage than previous number change programmes. While noting the three-year migration period provided for NGN Consolidation, BT submits that future number closure dates should avoid holiday periods or times when networks may be in lockdowns.
- 301 Eir agrees with the sentiment of the proposed text but submits that the reference to charges in paragraph (a) is unnecessary as originating operators are obliged to charge end-users in accordance with their published retail price lists, which may be amended from time to time.

- 302 Three suggests that ComReg should take a leading role to inform the public of number changes, together with operators/service providers. Three submits that while recorded announcements are useful in cases where callers can be given simple instructions on how to re-dial, this can only work at a network level where there is a standard change that applies across an entire number range. Three notes that, for the withdrawal of the 1850/1890 ranges, no consistent instruction can be given. Three suggests that end-users (call recipients) should be encouraged to introduce their own announcements prior to the withdrawal. Three disagrees with directing callers to Directory Enquires for information regarding number changes because of the cost of using those services. Three also submits that the on-line Phonebook will also be of limited use in these cases.
- 303 Twilio does not agree with the proposed text. Twilio submits that the requirement has not been justified and would leave companies with an implementation period of just over six months before 1 January 2022. Twilio queries how the requirements would be applied in practice for the future cessation of number ranges.
- 304 Vodafone agrees in principle that customers should get notice of proposed number changes. Vodafone submits that it was not possible to develop new commercial models for NGNs before the completion of the ComReg decision on wholesale pricing which Vodafone submits added delay in customers moving from old NGNs.
- 305 Vodafone suggests that clause b "(2) make adequate provision to direct the caller to the new number" be removed and submits that there is no practical way of implementing this. Virgin Media also suggests the removal of this clause.
- 306 Virgin Media submits that ComReg must take account of the practicalities of the proposed requirement and suggests that providers should work with ComReg in relation to the provision of information to customers of a requirement to change numbers. Virgin Media proposes an amendment to the proposed text to include the wording *"Subject to practicalities and engagement with ComReg,..."*
- 307 While Virgin Media has no issues with in-call announcements where a number range is ceasing, it does not agree with the level of detail proposed to be given to callers in the in-call announcement. Virgin Media submits that the details are very specific and will not be workable in practice where an entire number range is being ceased. Virgin Media submits that the announcement must be generic.
- 308 Virgin Media submits that businesses that use the numbers should have responsibility for keeping their customers informed of any alternative contact details and that it is disproportionate to expect operators to take on this responsibility.

Recorded Announcements (Q.15)

- 309 Two operators agree with the proposed wording of the announcement (Tesco Mobile, Virgin Media).
- 310 Eir submits that, as discussed at the NGN WG, the only feasible option is for generic announcements to be played from 1 January 2022. Eir recommends that the proposed wording "Please check the number you are calling" should be removed, as the caller has already been advised that the numbers are no longer in service and requesting the caller to check the number they called would add confusion.
- 311 Three suggests short and simple messages on the withdrawal of the NGN ranges. Three notes that there has been a significant period of notice for this change, and that most callers should be familiar with the change in advance of the withdrawal.
- 312 Three prefers a single announcement to cover all of the NGN cases, e.g.: "The number you have dialled is from a number range that has been withdrawn from service and replaced. Please call again using the new number. You have not been charged for this call." Three does not see a particular advantage for a separate announcement for each NGN range as there is no "rule" to map an existing number range to a new one.
- 313 Twilio does not believe that the proposed announcements will aid customer understanding as they do not guide a customer on how to check the number. Twilio asks if an announcement is the best mechanism for providing this information and whether the proposed announcements have been subject to customer research.
- 314 Twilio suggests that an announcement should direct people as to how to find the alternative number along the following lines "X numbers are no longer in service. Please check online with the organisation you were trying to call for their new number. You have not been charged for this call." Twilio suggests that ComReg carries out consumer research on this issue.

ComReg's Assessment and Next Steps

315 ComReg has considered the submissions on the proposed text for the Numbering Conditions to take account of operator obligations due to the cessation of number ranges, and on recorded announcements.

Numbering Conditions text

- 316 The three-year transition period for NGN Consolidation was referred to by some respondents. The NGN Decision was made in December 2018 and operators have been informed on multiple occasions of the NGN measures and of the need to keep customers informed. ComReg and industry meet regularly at the NGN WG to plan the implementation of the NGN measures, meetings that have been ongoing since early 2019.
- 317 An industry-agreed Implementation and Communications Plan was published in June 2019.³⁷ This included tasks for operators to communicate to 1850, 1890 and 076 customers, which they should have been doing since 2019. ComReg is very concerned that some operators have not communicated the withdrawal of the 1850, 1890 and 076 ranges to their customers in a timely manner. This is entirely unacceptable and needs to be addressed by those operators immediately.
- 318 ComReg does not accept that companies will have an implementation period of "just over six months" for NGN Consolidation as suggested by Twilio. To date, operators have already had two and a half years notice of the withdrawal of the 1850, 1890 and 076 number ranges. During this time operators should have properly planned for the implementation of NGN Consolidation, by contacting their 1850, 1890 and 076 customers in relation to the withdrawal of those NGN ranges and assisting them in switching to new numbers.
- 319 The lack of timely communication of the NGN changes by some operators to their customers, together with the clear disregard by some operators of the industry-agreed Implementation and Communications Plan, confirms the need for future numbering decisions to include, where relevant, transition obligations e.g. deadlines for operators to notify customers. Indeed, since there are a proportion of operators that have still not contacted customers affected by the NGN changes, ComReg may rely on any new obligations for swift enforcement action.
- 320 Regarding Vodafone's comment on wholesale pricing for NGNs, the wholesale pricing decision was made in January 2020³⁸ and came into effect in May 2020. ComReg considers that operators have had plenty of time to put in place NGN pricing for customers.

³⁷ Implementation of Decision D15/18 on Non-Geographic Numbers (NGNs) – Implementation and Communications Plan – <u>Information Notice 19/65</u> and Analysys Mason document Implementation and Communications Plan – <u>Report ComReg 19/65a</u>

³⁸ <u>ComReg 20/04R: Access to Non-Geographic Numbers: Imposition of Price Control and</u> <u>Transparency Obligation</u>

- 321 ComReg notes BT's suggestion to avoid holiday periods or network freeze times when setting closure dates for number ranges. In response, ComReg highlights that this date was set out in its NGN decision following its consultation with industry³⁹ in 2018. Notwithstanding the date set out in decision, ComReg's notes that setting out a new date for the shutdown would introduce a high risk of confusion among endusers and consumers generally, particularly for those who have been slow to migrate. For this reason, ComReg considers that a network shutdown before or after the deadline of 31 December 2021 is not in the interests of industry and their end-users in terms of a smooth transition to new numbers well in advance of the deadline. However, ComReg will take this feedback on board for any future number changes/closures.
- 322 With reference to call "charges" in paragraph (a) of the proposal, ComReg stresses that clarity and transparency on call charges during parallel running periods is very important. For numbers to be withdrawn there must be no increase in the cost of calling during the parallel running period. However, ComReg accepts that reference to "published rates" is sufficient and so will amend paragraph (a) as follows

"there shall be a period following the provision of a new number and before the ceasing of the number range during which the customer can use the original number or the new number and the charge for calling the original <u>or new</u> number shall remain the same while the cost of calling the new number shall be the operator's published rates for calling that each of those number<u>s</u>;

- 323 Responding to Three's comment that ComReg should take a leading role in informing the public of the number changes, together with operators/SPs, ComReg notes that, for the current NGN project, it has been widely communicating the NGN changes since 2018. ComReg has run several communications campaigns to explain the changes to consumers and organisations. These included press releases, a national print ad (September 2020), animations, posts on ComReg's social media channels (Twitter, Linkedin and Facebook) and digital ads.⁴⁰
- 324 ComReg stresses, as it has done repeatedly at the NGN WG, that operators are the direct link to Service Providers and are obliged to inform them of the upcoming withdrawal of the 1850, 1890 and 076 ranges. ComReg's communications is supportive of and not a replacement for operator communications. ComReg wrote directly to all NGN operators in August 2020 requesting them to inform their 1850, 1890 and 076 customers of the upcoming changes and of the switching options available to them. It is incumbent on operators to look after their customers to prevent disconnection or disruption at the end of 2021.

 ³⁹ ComReg 18/106 "Review of Non-Geographic Numbers – Response to Consultation and Decision"
 ⁴⁰ ComReg's communications materials are available at <u>www.comreg.ie/ngn</u>, at

https://www.comreg.ie/industry/licensing/numbering/ngn-review/ and on ComReg's social media channels

- 325 ComReg does not agree to insert the text proposed by Virgin Media "Subject to practicalities and engagement with ComReg,..." at the beginning of the Numbering Condition clause. While ComReg will endeavour to support operators where possible, it is the sole responsibility of Operators to keep their customers informed of such decisions that impact on them and this shall not be subject to any ComReg action. Several operators have not properly engaged with their customers on the NGN changes in a timely manner and ComReg considers that an obligation is needed to avoid any recurrence of this situation in the future. There can be no scope for flexibility, operators need to be responsible and fair to customers. The proposed text would water down the Numbering Condition clause and therefore will not be included.
- 326 ComReg notes Virgin Media's comment that businesses that use the numbers should have responsibility for keeping their customers informed of alternative contact details. ComReg points out however that operators are obliged to inform 1850, 1890 and 076 customers of changes that impact on them early on and to assist them in switching to new numbers. The timely switching and promotion of new numbers is crucial to the smooth implementation of NGN Consolidation. Service Providers cannot communicate new numbers until they have switched to new numbers it is therefore imperative for 1850, 1890 and 076 SPs to switch now, and for their serving operator to assist them in this regard.
- 327 As a reminder to operators in their communications to 1850, 1890 and 076 Service Providers (SPs):
 - switching to a new number sooner will mean greater cost savings for businesses.
 - a wide choice of 1800, 0818 and geographic numbers is available now, but these numbers are assigned on a first come first served basis and leaving it too late to switch may mean not getting a preferred number.⁴¹
 - switching early means existing and new numbers can be run in parallel before the NGN Consolidation deadline (31 December 2021) and announcements advertising new numbers may be put in place before the 1850, 1890 and 076 numbers are withdrawn. Such announcements may be used to communicate new numbers to callers.

⁴¹ A number search facility for 1800 and 0818 numbers is available at <u>https://www.comreg.ie/industry/licensing/numbering/1800-0818-number-search/</u>

- It takes time to communicate new numbers out to callers. Once an SP has a new number, website(s) and contact details (e.g. on Google) should be updated without delay. SPs should allow at least one month for new contact numbers to register e.g. on Google searches, although this duration depends on how regularly the SP website updates generally and the number of visitors to that site.
- Extra promotion measures may be needed to communicate new numbers out to vulnerable or offline users e.g. flyers or brochures.
- 328 ComReg strongly recommends that all 1850, 1890 and 076 SPs switch to new numbers now and by end October 2021 at the latest, to have enough time to communicate new numbers to callers and to avoid disruption or disconnection at the end of 2021. It is especially important that all high traffic NGNs, high profile NGNs (e.g. media advertised NGNs) and vital service NGNs switch as soon as possible and by the end of October 2021.
- 329 ComReg reminds operators that 1850, 1890 and 076 numbers should not be assigned to customers.⁴² ComReg does not assign these numbers and operators should not assign any either.

Recorded announcements

- 330 Switching to new numbers ahead of the NGN Consolidation deadline should allow time for announcements prior to the withdrawal of the 1850, 1890 and 076 ranges. SPs will then be able to communicate new numbers to callers prior to the cessation of those ranges. Operators should inform 1850, 1890 and 076 SPs of the announcement options available to SPs in the run up to 31 December 2021.
- 331 For callers who dial 1850, 1890 or 076 numbers from 1 January 2022 onwards, these calls shall be directed to a recorded announcement for a period of twelve months.⁴³ In terms of the format of the recorded announcements, ComReg considers that directing callers to Directory Enquiries or an online phonebook would not be appropriate. For some callers, the cost of calling Directory Enquiries is high. Directing callers to an online reference is unsuitable for some callers who may not have internet access. However, ComReg notes the output of the Central Statistics Office ("CSO") household survey ⁴⁴ which indicates that 92% of households in the state have internet access. With this high level of access, ComReg views it as reasonable that the announcement could direct callers to search online for the called party's new numbers when number ranges are ceased.

⁴² ComReg 19/01: Implementing the New NGN Platform

⁴³ Twelve months was agreed by consensus at the NGN WG 33, 11 March 2021

⁴⁴ <u>CSO Information and Communications Technology ("ICT") Household Survey 2020</u>

- 332 In relation to the National Directory Database, as the inclusion of numbers in the NDD is not an obligation, updating the NDD for new NGNs is unlikely to lead to a comprehensive NGN directory. Operators are however, reminded that all 1850, 1890 and 076 numbers should be removed from the NDD before 1 January 2022.
- 333 ComReg notes Three's suggestion for a single generic announcement to run across the three NGN ranges (1850, 1890 and 076) from 1 January 2022. However, ComReg considers that three distinct announcements announcing the withdrawal of each of the number ranges will help to communicate the new and simplified NGN platform to consumers, simplify the announcement itself and reinforce understanding of the withdrawn NGN ranges.
- 334 Although consumer research on the format of announcements has not been carried out, this issue has been discussed at the NGN WG and ComReg considers that operators are well placed to advise on messaging that will resonate with callers.
- 335In general, ComReg considers that announcements should, if possible, direct callers to a new number or a resource where the new number is advertised. Therefore, ComReg amends the wording of the relevant clause as follows:

"...(2) where possible, make adequate provision to direct the caller to the new number;..."

- 336 In the case of announcements for NGNs withdrawn from 1 January 2022, unfortunately it will not be possible to direct callers to a specific resource for new numbers. A generic announcement is the only option for calls to 1850, 1890 and 076 numbers from 1 January 2022.
- 337 ComReg notes industry concerns about the inclusion of the wording "Please check the number you are calling" and has decided to amend the wording to allow for online number searches.
- 338 Recorded announcements will play for callers to 1850, 1890 or 076 numbers from midnight on 31 December 2021 until midnight on 9 January 2023, and this requirement is now also included in the NGN Decision, as amended by the Decision Instrument in Annex 1. The announcements should, at a minimum, aim to be as follows:

"1850 numbers are no longer in service. Please check online for a new number. You have not been charged for this call."

"1890 numbers are no longer in service. Please check online for a new number. You have not been charged for this call."

"076 numbers are no longer in service. Please check online for a new number. You have not been charged for this call." 339 At this point ComReg is not minded to mandate a particular script as a requirement further to the NGN Decision. However, the announcement should reflect the elements provided for in the Decision Instrument (as a condition to the Numbering Conditions). ComReg also reserves use of its further powers in this regard.

3.6 End-User Validation – Condition of Use

Summary of ComReg's view

- 340 In Consultation 21/28, ComReg noted that the application process in the current Numbering Conditions requires applicants for individual 1800 and 0818 NGNs to enter a unique end-user identifier on the Fixed Number Portability (FNP) assignment system to allow an assignment to be validated⁴⁵. It also noted that this identifier may be the end-user name, or suitable alternative such as account number or order number. This, ComReg highlighted, is an important requirement to prevent hoarding of numbers, including 'golden' numbers, by operators or resellers. To strengthen this requirement, ComReg proposed setting it out as a new condition of use and proposed making additions to the Numbering Conditions as follows:
 - Add the following as paragraph 2 of Section 4.3 "Freephone Numbers", RoU Conditions:

An authorised undertaking shall only be granted the Rights of Use of 1800 Freephone Numbers if it is in receipt of a written order from an end-user for the number(s) being applied for together with the end-user's unique identifier. This identifier shall be the end-user's name, or suitable alternative such as account number or order number which enables ComReg to validate the authenticity of the assignment order.

 Add the following as paragraph 4 of Section 4.4 "Standard Rate Numbers", RoU Conditions:

An authorised undertaking shall only be granted the Rights of Use of 0818 Standard Rate Numbers if it is in receipt of a written order from an end-user for the number(s) being applied for together with the end-user's unique identifier. This identifier shall be the end-user's name, or suitable alternative such as account number or order number which enables ComReg to validate the authenticity of the assignment order

⁴⁵ ComReg 15/136R2 – Section 6.1 paragraph 14 "Application Process".

341 To provide further information to operators on the Individual Number Assignment (INA) system that incorporates use of the FNP system to assign 1800 and 0818 NGNs, ComReg proposed adding the following underlined text to Section 6.1 paragraph 14(a) of the Numbering Conditions:

"Applications for 1800 and 0818 numbers must be submitted through the FNP system and must be based on valid end-user orders / requests. <u>Details of the application process for 1800 and 0818 numbers are set out in the Individual Number Assignment (INA) process manual which is available on request by emailing the ComReg numbering team at numapps@comreg.ie."</u>

ComReg also proposed inserting the following definition of the INA in Appendix 11 "Definitions" of the Numbering Conditions:

"Individual Number Assignment (INA)" means the ComReg system that incorporates use of the Fixed Number Portability (FNP) system to assign individual 1800 and 0818 NGNs.

342 ComReg sought responses to the following consultation question:

Q. 16 Do you agree with ComReg's proposal to introduce the need for a written end-user order as a RoU condition of use for 1800 and 0818 NGNs and do you agree with ComReg's proposed text to reflect this in the Numbering Conditions? Please explain the basis for your response in full and provide supporting information.

Views of respondents

- 343 Of the respondents that submitted a response to this question, Eir, Tesco Mobile and Three agree with ComReg's proposal.
- 344 Vodafone agrees in principle but suggested some amendments to the text. It proposes that the words "written order" be replaced with "verified order". Vodafone also maintains that, in other documentation related to use of NGN numbers, "we have referred to the business using the NGN number as the Service Provider rather than end-user. For consistency is would good to use that term here".

- 345 Twilio and Virgin Media disagree with the proposal. Twilio states that the need for a written order is too restrictive. Twilio maintains that customers will often be discussing their needs with operators verbally before any written order or contract is entered into and that in the case of large customers, contractual negotiations and therefore a finalised written order may take considerable time due to matters completely unrelated to the customer's request for an 1800 or 0818 number. In order to be able to act promptly for the customer, Twilio suggests that it should be sufficient to be able to act on a verbal order. Twilio maintains that it should be sufficient when applying for the number that the operator warrants that it is requesting the number on behalf of an identified end-user and provides that end user's name.
- 346 In addition, Twilio considers it unclear how the requirement for a written order would operate in environments where a customer can order a number on an electronic platform and asks what the written order would be in that case.
- 347 Virgin Media requests guidance as to how the requirement for a written end-user order would work in the case of resellers, where an undertaking has no relationship with the end user and, as it does not have any information on that end-user, would not possess any written end-user order.

ComReg's Assessment

- 348 With regard to Vodafone's proposal to change the words "written order" to "verified order", ComReg understands that Vodafone believes that a written order should not be the only means of verifying an end-user order. However, in the absence of an identified clear and practical alternative, ComReg will retain the need for a written order as the optimum means of validating the authenticity of the assignment.
- 349 With regard to Vodafone's comment that the business using the NGN should be referred to as the Service Provider rather than end-user, ComReg notes that Service Provider has indeed been used in the NGN project to describe organisations and businesses using NGNs. However, in the context of an update to the Numbering Conditions, the term end-user, rather than Service Provider, is the appropriate classification for the user of a number.

- 350 In response to Twilio's suggestion that a verbal rather than a written order should be sufficient in applying for an NGN, ComReg notes that the need for a valid end-user order was discussed and adopted following the Numbering Conditions consultation in 2019.⁴⁶ Establishing the need for a written order enables 1800 and 0818 number holders to provide ComReg with the required documentation should it need to audit the assignment of NGNs as set out in Section 3.1.2 of the INA Process manual.⁴⁷
- 351 With regard to Twilio's request for clarity on how a written order can be provided in an electronic platform, ComReg is not familiar with particular ordering systems used by operators and their customers/end-users. Nevertheless, written evidence of the on-line application by the end-user shall be made available to ComReg should an audit of the NGN assignment be necessary.
- 352 In response to Virgin Media's request for guidance as to how the requirement for a written end-user order would work in the case of resellers, ComReg notes that, as proposed in question 17 of Consultation 21/28 concerning the recognition of resellers in the market, the number holder is responsible for the rights of use conditions that attach to its assigned numbers. Therefore, in the case of the assignment of 1800 or 0818 NGNs, the number holder is responsible for ensuring that there is a written end-user order for those NGNs.
- 353 Having carried out its assessment and having considered the submissions, ComReg decides to adopt the proposal to introduce the need for a written end-user order as a RoU condition of use for 1800 and 0818 NGNs. This will prevent 1800 and 0818 number hoarding and ensure number efficiency, as 1800 and 0818 numbers will only be assigned where there is a valid end-user.

3.7 Reseller Services

Summary of ComReg's view

- 354 In Consultation 21/28, ComReg highlighted the need for operators holding assignments of numbers to maintain accurate and current records on all of those numbers, including any numbers provided to resellers.
- 355 Furthermore, ComReg proposed clarifying its acceptance that number holders may provide services to resellers in the market. To that end ComReg proposed inserting the following as paragraph 12 in Section 3.1 of the Numbering Conditions:

⁴⁶ <u>ComReg 19/104</u> – Response to Consultation 19/88 on Updating the Numbering Conditions of Use and Application Process Document

⁴⁷ The Individual Number Assignment (INA) process manual – Section 3.1.2. This manual is available on request by emailing the ComReg numbering team at <u>numapps @comreg.ie.</u>

For the avoidance of doubt, ComReg recognises the presence of resellers in the market. In the provision of number based services, the number holder is responsible for the rights of use conditions that attach to those numbers as set out in Section 2 (a) of the Numbering Conditions.

356 ComReg also proposed to add the following definition to Appendix 11 of the Numbering Conditions:

"Reseller" means an authorised undertaking that enters into a contract with another authorised undertaking to receive number dependent services that the reseller uses to provide its own number dependent service to its end-users or to other authorised undertakings.

357 ComReg sought responses to the following consultation question:

Q. 17 Do you agree with ComReg's proposals to (a) insert a paragraph in Section 3.1 of the Numbering Conditions confirming ComReg's acceptance that authorised undertakings may provide services to resellers in the market as described and (b) insert the definition of reseller in Appendix 11 of the Numbering Conditions? Please explain the basis for your response in full and provide supporting information

Views of respondents to Document 21/28

- 358 Of the respondents that submitted a response to this question, Eir, Tesco Mobile, Three and Twilio agree.
- 359 Vodafone disagrees, maintaining that while there is currently an issue with reporting on the implementation of the NGN "change project", this is "essentially a temporary problem generating monthly report up to Dec 2021 and we suggest is not best dealt with by these proposed changes". Furthermore, Vodafone indicates that current arrangements between operators and resellers have developed over a number of years and it will take some time to re-contract with resellers. Such timeframes, Vodafone maintain, will likely impact the availability of the required reporting for the current project and suggests that a decision regarding the proposal concerning resellers is deferred until more thought is given to the implementation of cloud number solutions.

360 Virgin Media indicates that it does not understand how ComReg's proposal is practically possible and suggests that some flexibility is necessary. It agrees that resellers are an important feature of the market but maintains that, as the reseller has the direct relationship with the end-user, it is not possible for an undertaking to make sure that they are compliant with every condition and that resellers must take some responsibility. Furthermore, Virgin Media indicates that the explicit requirement for an undertaking to take full responsibility for all activities of a reseller in the context of the Number Conditions might reduce the incentive for undertakings to provide such services.

ComReg's Assessment

- 361 With regard to Vodafone's comment that the current issues with reporting on the NGN project are temporary, ComReg notes that the absence of up to date and accurate records from operators, particularly due to resellers, has already been raised by ComReg as an obstacle to the monitoring of the migration of 1850, 1890 and 076 customers to new numbers. ComReg's proposed clarification around resellers and the requirement on number holders concerning the maintenance and provision of up to date and accurate records is intended to support the current NGN project and other relevant projects in the future.
- 362 With regard to Vodafone's submission that it will take some time for operators to recontract with resellers, ComReg notes that the current Numbering Conditions requires number holders to maintain accurate and current records. ComReg is not proposing any change to these conditions and so is not placing any additional responsibility on the number holder.
- 363 In response to Vodafone's submission that the decision on resellers be deferred, ComReg notes that its proposal in Consultation 21/28 was to clarify its acceptance of resellers in the Numbering Conditions rather than introduce a new condition of use. As previously mentioned, the proposal also highlighted the current requirement in the Numbering Conditions⁴⁸ for number holders to maintain accurate and current records in respect of Rights of Use for all classes of numbers granted to them. Therefore, ComReg's has not proposed any changes in the Rights of Use in respect of resellers but merely highlights and reiterates the current obligations on number holders, irrespective of whether it provides those numbers to resellers or not.
- 364 In response to Virgin Media and similarly in its response to Vodafone, ComReg notes that the number holder is obliged to comply with the Rights of Use attached to those numbers, irrespective of whether that holder provides the number to its end-user or a reseller. Operators should put in place measures to ensure their resellers meet numbering obligations and conditions e.g. through contracts.

⁴⁸ ComReg 15/136R2 - Section 3.2 (8) "Rights of Use Conditions"

365 Having carried out its assessment and having considered the submissions, ComReg will adopt the proposal in relation to resellers as set out in Consultation 21/28.

4 Market and Technology Developments

4.1 Cloud Numbers and Geographic Numbering Condition

Summary of ComReg's view in Document 21/28

- 366 ComReg consulted on whether it is appropriate to change the Rights of Use ("RoU") condition attached to Geographic Numbers which requires the end-user of a Geographic Number to be physically located within the designated Minimum Numbering Area ("MNA") for that Geographic Number, such that Cloud Services could be facilitated using Geographic Numbers without the requirement of being physically located within the designated Minimum Numbering Area (MNA).
- 367 In order to inform its assessment, ComReg commissioned Behaviour & Attitudes Limited ("B&A") to conduct a consumer market research survey and gather relevant research in order to understand how users engage with the Geographic Numbering platform.
- 368 Following assessment of the information before it, ComReg was of the preliminary view that the removal of the physical location requirement from some or all assignments (i.e. the "Proposed Change") would not be appropriate in the context of ComReg's statutory framework, including being objectively justified and proportionate as required by Regulation 15 of the Authorisation Regulations, for a number of reasons including:
 - it would likely create several distinct effects that would hinder the efficient and effective functioning of the Geographic Numbering Platform.
 - the current Numbering Conditions of Use already support certain Cloud Services using Geographic Numbers.
 - the Proposed Change would not achieve the claimed benefit in relation to the use of Cloud Numbers.
- 369 In conclusion, ComReg's view was that the Numbering Conditions continue to support new and innovative services enabled by Cloud Numbers. To provide sufficient clarity about how Cloud Services can be delivered using the numbering resource, ComReg noted the following:
 - The Numbering Conditions permit the use of NGN ranges (i.e. 1800 and 0818) for the provision of Cloud Services.

- ComReg recently addressed confusion and cost issues (wholesale and retail) previously associated with the NGN platform and NGNs now provide a fit-for-purpose solution for businesses and consumers, as evidenced by recent increases in use of the NGN platform in support of same.
- ComReg is not minded to change the numbering condition attached to the use of Geographic Numbers, that requires an end-user to have a residential/business premises located within the designated minimum numbering area (MNA) for that Geographic Number.
- For businesses or consumers with a requirement for Geographic Numbers, Cloud SPs must ensure that the end-user's residential/business premises is physically located within the designated MNA for that Geographic Number.
- 370 ComReg sought responses to the following consultation questions:

Q. 18 Do you agree with ComReg's proposal to retain the Geographic Number condition requiring the end-user's premises to be physically located within the designated MNA for that number? Please explain the basis for your response in full and provide supporting documentation

Q. 19 Do you agree that Non-Geographic Numbers (0818 Standard Rate and 1800 Freephone) provide a valid solution for Cloud Services? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Consultation 21/28

Retention of Geographic Numbering condition requiring the end-user's premises to be physically located within the designated MNA for that number (Q.18)

- 371 Seven operators responded to this question.
- 372 The Alternative Operators in the Communications Market ("ALTO") submits that the Numbering Conditions and RoU related to Geographic Numbers are not set out in Document 21/28a. ALTO suggested to include the assumptions and use cases mentioned in Document 21/28 in a clear and accessible format in Document 21/28a.
- 373 BT does not agree with ComReg's proposal and notes that their international customers request the use of Irish local Geographic Numbers which cannot be assigned to those users due to the current Numbering Conditions. BT notes that it is not viable for these businesses to locate in every MNA.
- 374 Eir agrees with ComReg's proposal.
- 375 Tesco Mobile agrees with ComReg's proposal to retain the condition to avoid any customer confusion.

- 376 Three agrees that the Geographic Number condition should be retained and proposed to have fewer but larger geographic areas. In addition, Three notes the following:
 - Authorisations to provide electronic communications services should be technologically neutral, irrespective of the service delivery method, while acknowledging the necessity to group different services based on their characteristics to help consumers.
 - The necessity for distinctions between different service types will be eliminated as Cloud services emerge, leading to lesser number ranges. However, some distinctions should be retained for consumer benefits.
 - New services using Cloud technology may not fit within the existing service distinctions in the current numbering scheme.
- 377 Twilio urged ComReg to consider eliminating the link between Geographic Numbers and physical locations and proposed to do this in three phases:
 - Phase 1 Replace an MNA system with Area Codes;
 - Phase 2 Allow end users to port numbers between Area Codes; and
 - Phase 3 Allow end users to request numbers if they have a business or residential premise located in the Republic of Ireland ("Rol").
- 378 Twilio submits that ComReg's Consumer Survey only had evidence on consumer awareness of the 49 Area Codes and not on the awareness of 106 MNAs. Twilio also gave examples of countries (Sweden, France, Switzerland, Norway and Australia) that have eliminated or are in the process of eliminating the strict link between Geographic Numbers and geographic areas for reasons including evolution of new products and technologies.
- 379 Vodafone does not agree with ComReg's proposal and suggests flexibility in the allocation of Geographic Numbers from other areas in Ireland. Vodafone believes that this flexibility addresses the fraud concern among consumers and also gave examples of EU countries (UK, France, Norway and Romania) among others which have removed geographic significance of Geographic Numbers.
- 380 Vodafone does not agree with the Consumer Survey results for the following reasons:
 - It is difficult for consumers to respond to a survey without having more complete information on a new technology.

- Consumers need not have to be concerned about costs as it would be the existing call cost irrespective of the actual location of the number.
- The concern of 'fraud' may be overstated as Geographic Numbers can already be used quite flexibly.
- 381 Vodafone notes that the original Geographic Number Plan was developed according to the then fixed Telephone network with local and transit exchanges. At present, networks are consolidating, and smaller number of exchanges cover larger areas. The cost structure has also changed from transmission over longer distance dominating the cost model to cost models not based on distance. Vodafone also pointed out a contradiction between paragraph 211⁴⁹ and footnote 47⁵⁰ in Document 21/28.

The provision of Non-Geographic Numbers (0818 Standard Rate and 1800 Freephone) as a valid solution for Cloud Services (Q.19)

- 382 ComReg received five responses to this question.
- 383 Eir agrees with ComReg's view that NGNs and Geographic Numbers used in accordance with Numbering Conditions provides valid options for Cloud Services.
- 384 Tesco Mobile noted that they did not have sufficient information to comment on this matter.
- 385 Three agrees with ComReg's view, but also notes that new use cases may emerge in future that will require numbers outside NGN ranges.
- 386 Twilio is of the view that the NGN ranges can be used only for certain, but not all, cloud-based use cases. Twilio suggests that business VoIP operators and cloud communications providers should equally have access to Geographic Numbers as both SPs provide the same phone access.
- 387 Vodafone does not agree that NGNs alone is the solution for Cloud Services. Vodafone believes that as industry advancing towards converged services, implementing Cloud Number solutions in number ranges of Geographic Numbers, Mobile Numbers and NGNs is in consumer interest.

 ⁴⁹ "For the purpose of this assessment, ComReg notes that only Non-Geographic Numbers under (a)
 – (c) can be used in respect of Cloud Numbers." Where (a) Freephone Numbers, (b) Standard Rate Numbers, (c) Mobile Numbers.

⁵⁰ "As set out in Section 6.2 of ComReg's Numbering Conditions (document 15/136R2 as amended), the rights of use for Mobile Numbers and MNCs shall only be granted to MNOs and MVNOs, and to OTT Service Providers, provided the OTT Service Provider qualifies as an ECS, and the OTT Service Provider has a contract with an Irish MNO to access its network. Mobile numbers are assigned in blocks of 100k numbers. Cloud SPs that wish to use mobile numbers for their services should contact a holder of such mobile numbers."

ComReg's Assessment/Position

Retention of Geographic Numbering condition requiring the end-user's premises to be physically located within the designated MNA for that number (Q.18)

- 388 In relation to ALTO's comment, Document 21/28a explains the draft Numbering Conditions of use and application process, and with respect to Geographic Numbers, ComReg did not propose any change in the existing Numbering Conditions and RoU. Thus, ComReg does not find it necessary to make any changes to Document 21/28a. Any change, if made, would be based on the assessment of responses received to the consultation (Document 21/28).
- 389 ComReg understands that there is some demand for Irish local Geographic Numbers by businesses outside Ireland. However, the Consumer Survey makes it clear that Irish consumers value and trust the current Geographic Numbering system based on the current numbering conditions rights of use and for this reason, ComReg is not minded to make changes now.
- 390 In relation to Three's proposal to have fewer but larger areas, ComReg notes that Three has not provided any rationale or evidence for reducing the number of Area Codes. In any event, ComReg notes that such an approach would not be straightforward because consumers have a high level of familiarity with their local number (i.e. 83% of respondents know the areas code of their Geographic Number).⁵¹ Furthermore, such an approach would effectively require a number change for a large number of consumers.
- 391 ComReg notes Three's general comments on provision of electronic communication services and is mindful of these aspects. As mentioned in Document 21/28, ComReg is open for further engagements with stakeholders as required and will continue to monitor the developments and innovations in the industry on an ongoing basis.
- 392 In relation to Twilio's view that the Consumer Survey is not an evidence for consumer awareness of 106 MNAs, ComReg notes that there is no identifier in a Geographic Number which traces back to the corresponding MNA of that number. Consumers only see the Area Code within a Geographic Number while making calls to or receiving calls from a Geographic Number and contains the geographic information. MNA is a technical term for which there is no identifier for a consumer and does not have an impact on the geographical information and the value they place on it.
- 393 Twilio and Vodafone gave examples of other EU countries which have removed the link between Geographic Numbers and geographic areas. It is important to note that there is no "one size fits all" approach to managing the numbering resource. ComReg has discretion under the regulatory framework as to how it goes about assessing whether its proposed actions might reasonably be expected to achieve its objectives.

⁵¹ Document 21/28b – Slide 14.

This may differ from authorities in other jurisdictions who may have different markets and/or be dealing with circumstances which are different to those that exist in Ireland at this time. ComReg relies on the evidence from Irish consumers which clearly demonstrated the value and importance if the information provided by the area code. Therefore, ComReg remains of the view that the link between Geographic Numbers and geographic areas should remain.

- 394 In the Consumer Survey, ComReg assessed consumer satisfaction with the existing numbering system and conditions as well as consumer reaction to the Proposed Change. A large majority of the consumers (81% of the respondents) are satisfied with the current approach⁵². Vodafone's suggestion for flexibility in the allocation of Geographic Numbers from other areas in Ireland and that this would address the fraud concern among consumers is not supported by ComReg's Consumer Survey results. In such a situation, consumer concerns are still significant according to the Survey. These concerns include, among others⁵³:
 - 86% of consumers are concerned about fraudulent, scam or telemarketing calls, with 62% having strong concerns.
 - 81% of consumers' trust in geographic numbering system would be reduced, with 53% having strong impacts.
 - 76% of consumers are less likely to pick up calls from such numbers, with 48% strongly agreeing with the statement.
- 395 In relation to Vodafone's comments on the Consumer Survey results, ComReg notes that:
 - The Consumer Survey had very clear questions aimed at, among other things, determining whether consumers placed informational value on the area codes of Geographic Numbers. This is independent of whether the same respondents have value arising from the use of Cloud Numbers and is in any event irrelevant given that consumers are already benefiting from Cloud based services using the numbering resource.
 - ComReg did not assess any cost concerns that consumers may have, and it is unclear what point Vodafone is making in relation to costs.

⁵² Slide 55, Document 21/28b.

⁵³ Slide 71, Document 21/28b.

- The Consumer Survey provides evidence for consumer concerns regarding fraud calls if the link between Area Codes and geographic areas is removed. Consumers view the Geographic Numbers to be safer with the current conditions, and their trust in the system will be reduced as well as the likelihood of answering calls from Geographic Numbers would be reduced, if this link is removed.
- ComReg did not imply that fraud cannot happen over Geographic Numbers in Ireland and this misses the point. The Consumer Survey clearly shows that consumers are less likely to engage with numbers that they do not recognise (whether Geographic or otherwise) if there is a fear of fraud. However, because consumers have high levels of awareness of Geographic Numbers compared to alternatives (particularly in relation to their local area) concerns of fraud are significantly less likely to arise in relation to Geographic Numbers and especially so in relation to local areas numbers.
- 396 In relation to Vodafone's view about the development of the Geographic Numbering Plan, ComReg notes that regardless of how that plan was developed, consumers attach significant importance to the geographic information provided by these numbers and this assists in the decision-making process of making a call to any Geographic Number or answering a call from same. The Geographic Number plan may have been developed for a different set of reasons, but this does not undermine the value currently placed by consumers on the geographical information provided by Geographic Numbers.
- 397 The contradiction between paragraph 211⁵⁴ and footnote 47⁵⁵ in Document 21/28 pointed out by Vodafone is noted by ComReg. ComReg wishes to clarify that only the Cloud Service Providers who satisfy the condition as set out in Section 6.2 of ComReg's Numbering Conditions (Document 15/136R2 as amended) can use Mobile Numbers for their services. For clarity, mobile numbers may only be used in the provision of a mobile service.

The provision of Non-Geographic Numbers (0818 Standard Rate and 1800 Freephone) as a valid solution for Cloud Services (Q.19)

 $^{^{54}}$ "For the purpose of this assessment, ComReg notes that only Non-Geographic Numbers under (a) – (c) can be used in respect of Cloud Numbers." Where (a) Freephone Numbers, (b) Standard Rate Numbers, (c) Mobile Numbers.

⁵⁵ "As set out in Section 6.2 of ComReg's Numbering Conditions (document 15/136R2 as amended), the rights of use for Mobile Numbers and MNCs shall only be granted to MNOs and MVNOs, and to OTT Service Providers, provided the OTT Service Provider qualifies as an ECS, and the OTT Service Provider has a contract with an Irish MNO to access its network. Mobile numbers are assigned in blocks of 100k numbers. Cloud SPs that wish to use mobile numbers for their services should contact a holder of such mobile numbers."

- 398 As part of its assessment of numbering resources for Cloud Services, ComReg proposed that Non-Geographic numbers in the 1800 and 0818 ranges could provide a valid solution for Cloud Services.
- 399 In relation to Three's and Vodafone's comment, ComReg is open to Cloud Services requirements and will keep monitoring the advancements in the industry and consult with stakeholders in future as required.
- 400 In Twilio's response, it did not demonstrate how the current conditions restrict business VoIP operators and Cloud SPs from providing services to Irish consumers.
- 401 ComReg is of the view that where a Non-Geographic Number is not suitable for a particular Cloud service provider's customer, an alternative Geographic Number within the MNA in which that customer is located may be assigned. ComReg has evidence that this practice is in fact already in use by some of the major Cloud service providers and considers this appropriate. ComReg facilitates such Cloud service providers by making available MNA maps in Google Maps file format (.KML) to facilitate the automation of their number assignment processes to customers.
- 402 Having considered the responses from operators, ComReg has concluded that on balance, Non-Geographic Numbers in the 1800 and 0818 ranges provide a valid solution for all Cloud Services. In circumstances where a Cloud Services provider requires a Geographic Number, ComReg is of the view that operators should accommodate this need, whilst ensuring that the MNA geographic boundary requirement is met.

4.2 Review of Minimum Numbering Areas (MNAs)

Summary of ComReg's view in Document 21/28

- 403 In Consultation 21/28, ComReg provided the background to the concept of the MNA. The MNA, which was originally adopted and defined in 1998 by the Office of the Director of Telecommunications Regulation (ODTR), corresponded to the "charge group areas" used by the then Telecom Eireann and so the MNA boundaries (and Area Code boundaries) were based on the then Telecom Eireann's exchange area boundaries - i.e. the boundaries were defined by physical elements of the network such as ducts and pole runs.
- 404 ComReg noted that, as exchange area boundaries evolve, particularly as Eir continues to modernise its network, it will be necessary to assess if there is a need to maintain MNAs. ComReg also considered that their removal would not entail any number changes and could result in improved efficiencies.

- 405 ComReg noted that Ireland has 49 Areas Codes and 106 MNAs, with some Area Codes containing more than one MNA. In a previous Response to Consultation⁵⁶ in 2018, ComReg proposed that while it remained of the view that the geographic boundary for Geographic Numbers should remain at MNA level, it had no objection in principle to geographic boundaries for Geographic Numbers being increased and would continue to monitor this issue and to engage with industry, so as to ensure that appropriate geographic boundaries are adopted now and into the future. ComReg therefore took the opportunity to re-visit the MNA concept in Consultation 21/28.
- 406 ComReg sought responses to the following consultation question:

Q. 20 Do you have a view as to the need to retain the MNA concept? Please explain the basis for your response in full and provide supporting information

Views of respondents to Document 21/28

- 407 BT put forward several reasons for their view that the MNA has become outdated and should be removed. In summary BT maintains that the MNA is based around a single operator's network and introduces constraints, inefficiencies and additional costs on operators who must adapt their systems to the MNA.
- 408 BT also considers that the migration of networks to SIP Interconnect means the switching function is moving to the core of the network so that MNAs, in BT's view, are becoming an "artificial construct". BT highlights Eir's Copper Withdrawal Project which see the copper network closing in the coming years and so, BT maintains, it is time to "modernise MNA structure to align with the evolution of the networks.
- 409 BT highlight that MNAs introduce inefficiencies in number management. It restricts the availability of geographic numbers to those within the MNA in which the subscriber resides and also prevents a subscriber retaining their number when moving outside the MNA.
- 410 BT recommends that, "ComReg consult with a view to modernising the geographic numbers considering the substantial evolution of networks that is taking place."
- 411 Tesco Mobile believes that "ComReg should be guided by customer use of geographic numbers.
- 412 Three maintains that the MNA structure is outdated and should be removed. Three notes the output of the Geographic Number Survey and the value that still exists in Area Codes but Three does not believe that this extends down to MNAs, noting that consumers do not know the Geographic Numbers associated with a particular MNA.

⁵⁶ ComReg 18/44 "Numbering Conditions of Use and Application process – Response to Consultation – 1st June 2018

- 413 Three highlights that MNAs drive inefficiency in number use as spare numbers must be retained in each MNA. It also maintains that, as a minimum, ComReg should begin a process of reducing the number of MNAs by expanding them up to the Geographic Area Code boundaries but, in the longer term, also seek to reduce the number of Area Codes.
- 414 Vodafone indicates that MNAs are no longer needed as networks move to larger and more centralised exchanges. Furthermore, Vodafone maintains that MNAs do not provide any benefits to customers and add cost and complexity to the number assignment and porting processes. Vodafone agrees with ComReg's note that removing the MNA would not entail any number changes. Vodafone also refers to its comments on Cloud Numbering in relation to MNAs.
- 415 Twilio does not agree with the MNA concept and suggests that ComReg should move to replace MNAs with area codes. This, Twilio maintains, would be a first step in moving away from the requirement that geographic numbers be linked to an associated geographic area.
- 416 Eir maintains that the MNA system should be retained as it is hard coded into legacy network systems and any change in the near term would be very expensive. Eir suggests that the MNA concept can be re-visited in a few years as its network modernisation programme nears completion.

ComReg's Assessment/Position

- 417 Four of the six respondents to this question, namely BT, Three, Vodafone and Twilio consider that the MNA concept is not needed while Tesco Mobile believes that ComReg should be guided by customer use of geographic numbers. Eir maintains that the MNA concept should be retained for the reasons provided.
- 418 Three and Twilio suggest that ComReg should move to replace MNAs with area codes but that, in the longer term, should begin a process to move away from the requirement that geographic numbers be linked to an associated geographic area. In response, ComReg notes that it considered the association of geographic numbers with geographic areas in its analysis of the output of its Geographic Number survey, discussed earlier in Section 4.1 of this response to consultation. ComReg found that end-users placed value and trust in geographic numbers that are linked to an associated geographic area and that, consequently, ComReg will retain the Geographic Numbering condition requiring the end-user's premises to be physically located within the designated MNA for that number.

419 In light of ComReg's preliminary position and respondents' comments, ComReg confirms its position that it will retain the geographic boundary for Geographic Numbers at MNA level but will continue to monitor this issue and to engage with industry to ensure that appropriate geographic boundaries are adopted. In particular, ComReg notes Eir's comment that the MNA concept can be re-visited in a few years as its network modernisation programme nears completion. In this regard, ComReg notes the timelines in Open Eir's white paper on the Copper switch-off entitled "Leaving a Legacy for the Future"⁵⁷. In this paper, Open Eir indicates that the current Irish Fibre Network initiative (FNI) programme is expected to be completed in 2024, and it will make a formal announcement by 2025 regarding the withdrawal of access to its copper-based services and associated timelines. Thus, the growing coverage of NGA networks, and the retirement of copper local loop and POTS based voice services over the next few years, facilitates the migration to all-IP networks and a reduced requirement to maintain the MNA concept.

4.3 Review of other Cloud Numbering Topics

Summary of ComReg's view in Document 21/28

- 420 ComReg further explored the suitability of the current Numbering Conditions in respect of two topics, namely Calling Line Identification ("CLI") and Number Portability, for each of the four identified Cloud Service use cases. The exploration of these two important numbering topics was intended to highlight the issues that might arise in the use of numbering for Cloud Services. ComReg did not propose any changes to the conditions of use but sought the views of industry on its analysis of these topics.
- 421 ComReg's initial assessment was that the Numbering Conditions concerning CLI and Number Portability broadly supported the needs of Cloud Services, while ensuring the protection of customers. Nevertheless, to consider the significant number of topics regarding the rights of use of numbers used for cloud services, and also being mindful of the request from industry for a more harmonised approach by NRAs to these issues, ComReg undertook to support and participate in an initiative by ECC WG NaN to address Cloud Numbering. Such an initiative should recommend appropriate conditions of use for numbers for Cloud Services.
- 422 ComReg sought responses to the following consultation questions:

Q. 21 Do you agree with ComReg's assessment of the conditions around CLI and Number Portability in relation to the use of numbers for Cloud Services? Please explain the basis for your response in full and provide supporting information.

Q. 23 Do you agree with the proposal that ComReg will continue to monitor

⁵⁷ https://www.openeir.ie/wp-content/uploads/2021/03/White-paper_Leaving-a-Legacy.pdf

developments in Cloud services at ECC/CEPT, to promote greater policy harmonisation for Cloud services across Europe? Please explain the basis for your response in full and provide supporting information.

Views of respondents to Document 21/28

ComReg will continue to monitor developments in Cloud services at ECC/CEPT (Q.23)

- 423 All respondents who submitted a response to this question, namely Eir, Tesco Mobile, Three and Vodafone agree with ComReg's analysis.
- 424 ALTO noted the various "positions" set out by ComReg in Consultation 21/28. It remarks that "the conditions and Rights of Use do not appear to be set out in the ComReg Document 21/28a and that should be addressed. The assumptions and use cases arising in the Consultation paper should also be included in a clear and accessible format within Document 21/28a".
- 425 Twilio agrees with ComReg's analysis but suggests that ComReg should repeat this material as guidance in the introduction to the Numbering Conditions so that it is clear in future that ComReg finds these use cases acceptable.
- 426 Twilio also comments on the Number Portability analysis, arguing that this right of use condition should be relaxed where the number does not have a special status for the customer which, Twilio maintains, is the case in the Privacy and Click-to-Call use cases.

ComReg's proposal to continue to monitor developments in Cloud services at ECC/CEPT, to promote greater policy harmonisation for Cloud services across Europe (Q.23)

- 427 ComReg received seven responses to this question, from BT, Eir, Tesco Mobile, Three, Twilio, Virgin Media and Vodafone.
- 428 All respondents agree with ComReg's proposal, with Vodafone agreeing strongly.

ComReg's Assessment/Position

- 429 Respondent's generally agreed with ComReg's analysis of the Numbering Conditions, with the exception of Twilio which maintains that the Number Portability condition of use should be relaxed in use cases where the number does not have any special status for the customer. In response, ComReg notes that Number Portability is a legislative⁵⁸ requirement. Notwithstanding this requirement, ComReg's notes the strong support by respondents for ComReg's proposal to discuss such topics with other NRAs at CEPT/ECC WG NaN to enable a harmonised view of this and other Cloud Numbering topics.
- 430 ALTO and Twilio suggest that ComReg include the outcome of its analysis on Cloud Numbering in its Numbering Conditions. In response ComReg notes that it did not propose any changes to the conditions of use but sought the views of industry on its analysis of these topics. Therefore, any amendment to the Numbering Conditions in this regard is not appropriate. Furthermore, given the strong support from respondents, ComReg will carry forward its views to the detailed study on Cloud Numbering at CEPT/ECC WG NaN.

4.4 **Temporary Numbers**

Summary of ComReg's view in Document 21/28

- 431 ComReg consulted on whether it is appropriate to introduce Temporary Numbers to facilitate personal transactions allowing consumers to advertise goods and personal services.
- 432 The consumer perspectives were assessed in the consumer market research survey by B&A which informed ComReg's assessment in Document 21/28.
- 433 ComReg was not minded to introduce Temporary Numbers at this time, for a number of reasons including the following:
 - Consumers find it important for businesses to use permanent phone numbers and lack the confidence to purchase from business organisations that use temporary numbers.
 - Consumers' current understanding and trust of Geographic Numbers is based on residential/business premises being physically located within the designated minimum numbering area and any deviation from that risks the effective functioning of the Geographic Numbering platform.

⁵⁸ Regulation 25(1) of the Universal Service Regulations.

- Just a single bad experience with a temporary Geographic Number may create a contagion effect across all Geographic Numbers over a period of time, noting that Geographic Numbers currently have a high level of trust.
- 434 ComReg sought responses to the following consultation question:

Q. 22 Do you agree with ComReg's assessment of temporary numbers? Please give reasons for your answer highlighting any solutions that you think might support the introduction of temporary numbers.

Views of respondents to Consultation 21/28

- 435 Five responses were received to this question.
- 436 Eir agrees with ComReg's assessment and also raises concerns on the impact of Temporary Numbers on the trust embedded in the Geographic Numbering system.
- 437 Three notes that the use of Temporary Numbers should be considered because these numbers provide businesses with more agile options for providing businesses like pop-up shops, deliveries, etc.
- 438 Tesco Mobile, Virgin Media and Vodafone agrees with ComReg's assessment of temporary numbers.

ComReg's Assessment/Position

- 439 In Consultation 21/28, ComReg provided the background to Temporary Numbers used to advertise goods and services.
- 440 In relation to Three's comment, ComReg notes that Temporary Numbers are not essential for businesses to be able to provide their services through pop-up shops, deliveries, etc. and at any rate, many pop-up businesses choose to use their existing mobile numbers. ComReg considers more reasons are required to allow introduction of Temporary Numbers at present.
- 441 After considering all responses received and the results of its consumer survey in forming its opinion, ComReg is of the opinion that Temporary numbers are not currently required in the Irish market.

5 Further Topics

5.1 Numbers for Drama Use

Summary of ComReg's view in Document 21/28

- 442 In Consultation 21/28, ComReg recognised the benefits of the Film, T.V. and Animation sector in Ireland. It also highlighted that it had received requests from this industry for a suitable mobile number range for drama use i.e. numbers that are not assigned to operators and so, not being provided to end-users, they may be displayed on screen without the risk of nuisance calls. ComReg also noted that, while the 020 access code was already designated for drama use, no number range suitable for mobile has been set aside.
- 443 As all mobile numbers in Ireland begin with 08X, ComReg proposed to reserve the 089 011 0000 to 089 011 0999 (1,000) numbers for drama use.
- 444 ComReg sought responses to the following consultation question:

Q. 24 Do you agree with ComReg's proposal to reserve 1,000 numbers in the number range 089 011 0000 to 089 011 0999 for drama use?

Views of respondents to Document 21/28

445 All six respondents who submitted a response to this question, namely BT, Eir, Tesco Mobile, Three, Virgin Media and Vodafone, agreed with ComReg's proposal. Three noted that reserving this number range will quite likely affect the entire 100,000 block of numbers. By this, ComReg understands that, since the routing of mobile numbers is at the 100k level, then the remaining numbers in the 089 0100000 to 089 0199999 should not be made available for assignment.

ComReg's Assessment

446 Given respondents' general agreement, ComReg adopts its proposal to reserve 1,000 numbers in the number range 089 011 0000 to 089 011 0999 for drama use. The potential effect on the entire 089 0100000 to 089 0199999, as highlighted by Three is noted.

5.2 Trading in Numbers

Summary of ComReg's view in Document 21/28

447 In Consultation 21/28, ComReg proposed to add a clarification that trading in numbers is not permitted by adding the following underlined amendment to the Right of Use condition in paragraph 6 of Section 3.2 as follows:

No charge of any kind shall be made for transferring a right of use for a number, other than a charge limited to covering the associated administrative costs. For clarity, trading of numbers is not permitted.

448 ComReg sought responses to the following consultation question:

Q. 25 Do you agree with ComReg's proposal to add the said text to paragraph 6 of Section 3.2 "Rights of Use Conditions", clarifying that trading of numbers is not permitted?

Views of respondents to Document 21/28

449 All five respondents who submitted a response to this question, namely Eir, Tesco Mobile, Three, Virgin Media and Vodafone, agree with ComReg's proposal.

ComReg's Assessment

450 Given respondents' general agreement, ComReg adopts its proposal to add the clarification in the Numbering Conditions that trading in numbers is not permitted.

6 Next Steps

451 ComReg invites and welcomes the views of all interested parties and will consider all information submitted to it on foot of the further consultation in relation to the matter discussed above under the heading "HSE Request". Upon completion of this consultation, which will include a review of all responses received, ComReg's response to this consultation will be published.

Submitting comments

- 452 The period for submitting responses to this consultation will run until 5pm on 16 August 2021. Given the limited scope of the consultation ComReg is providing four weeks identified in ComReg's Consultation Procedures (ComReg 11/34). No extension to this deadline will be granted.
- 453 ComReg requests that all responses reference the relevant question numbers and/or paragraph numbers from this document. ComReg also requests that respondents set out the rationale for their submitted views, to include any supporting information.
- 454 ComReg will publish all responses to this consultation in due course in accordance with its policy. Respondents are therefore asked to provide confidential and nonconfidential versions of any document in respect of which any confidentiality is claimed (e.g. commercially sensitive information). In this respect, please see ComReg's Consultation Procedures (ComReg 11/34) and Guidelines on the Treatment of Confidential Information (ComReg 05/24).
- 455 ComReg requests that responses to this consultation be submitted electronically and in an unprotected format in order that they can be appended into ComReg's submissions document for electronic publication.
- 456 All responses to this consultation should be clearly marked:- "Reference: Consultation 21/75 "Review of the Numbering Conditions of Use and Application Process", and sent by e-mail to arrive on or before 5pm, on 16 August 2021, to:

Conor Mahon Commission for Communications Regulation Email: <u>marketframeworkconsult@comreg.ie</u>

7 Consultation Question

Question: Do you agree with the proposal to extend the operation of up to 30 NGNs in use by the HSE to 30 November 2023? Please explain the basis for your response in full and provide supporting information.

Annex: 1 Decision Instrument

Decision

Part I – Definitions

Terms used in this Decision have the same meaning as set out in any of the following, as applicable: the European Communities (Electronic Communications, Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011) ("Framework Regulations"); the European Communities (Electronic Communications, Networks and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011) ("Authorisation Regulations"); the Communications Regulation Acts 2002 to 2017 ("the 2002 Act"); the third version of the "Numbering Conditions of Use and Application Process" (ComReg 15/136R2); and Commission Document 21/75 of which this Decision forms part.

Part 2 – Statutory Remit

The statutory functions, objectives, duties and powers of the Commission for Communications Regulation ("the Commission") in relation to its management of the national numbering resource are set out in the 2002 Act and in the Common Regulatory Framework (including Directive 2002/21/EC as amended, and Directive 2002/20/EC as amended, and as respectively transposed into Irish law by the Framework Regulations and by the Authorisation Regulations). These functions, objectives, duties and powers of the Commission are set out in greater detail in Appendix 10 of ComReg Document 15/136R2.

Part 3 – The Decision

The Commission,

- (a) pursuant to its function under section 10(1)(b) of the 2002 Act to manage the national numbering resource and its objectives in the exercise of that function as set out in section 12 of the 2002 Act and as set out in Regulation 16(1) of the Framework Regulations;
- (b) having regard to its duty under Regulation 16(2) of the Framework Regulations to apply objective, transparent, non-discriminatory and proportionate regulatory principles in pursuit of its statutory objectives;
- (c) having conducted a consultation (Commission Document 21/28) and having considered all responses received on foot of that consultation;
- (d) for the reasons set out in its written response to Commission Document 21/28 to which this Decision is attached; and
- (e) in exercise of its powers under Regulations 8(1), 13(2), 14(1) and 15(1) of the Authorisation Regulations and Parts A and C of the Schedule thereto,

hereby makes the following decisions:

- (1) The Numbering Conditions of Use and Application Process (currently Commission Document 15/136R2, version three) shall be amended as and from 19 July 2021 as follows (and shall be titled 15/136R3, with consequential numbering and pagination updates):
 - (a) insert the following text as a new Section 3.1 (9) in the Numbering Conditions:

"Ceasing of Number Ranges – Undertakings shall inform their customers of any requirement to change number sufficiently in advance of the ceasing of the number range, and undertakings shall take appropriate measures in respect of such number changes to include the following:

a) there shall be a period following the provision of a new number and before the ceasing of the number range during which the customer can use the original number or the new number and the charge for calling the original or new number shall be the operator's published rates for calling those numbers;

b) when the period of parallel running of the original and new number ends, or after the ceasing of the number range, in-call announcements shall be put in place to inform callers that

(1) the original number has been replaced and is no longer in use, and

(2) where possible, make adequate provision to direct the caller to the new number; and

(3) there shall be no charge whatsoever for any call made to a number which has been replaced and is no longer in effect."

(b) insert the following as paragraph 12 in Section 3.1 of the Numbering Conditions:

"For the avoidance of doubt, ComReg recognises the presence of resellers in the market. In the provision of number based services, the number holder is responsible for the rights of use conditions that attach to those numbers as set out in Section 2 (a) of the Numbering Conditions."

(c) insert the following text at the end of paragraph 6 of Section 3.2 of the Numbering Conditions:

"For clarity, trading of numbers is not permitted."

(d) insert the following text as a new second sentence of paragraph 7 of Section 3.2 of the Numbering Conditions:

"In addition, the end-user retains the right to port the terminated number to another provider for up to six months after the termination of the number unless that right is renounced by the end-user. There shall be no conditions placed on an end-user to re-contract or make contact with the provider with whom the number is quarantined in order for that number to be ported."

(e) Delete the following text from the beginning of paragraph 5 of Section 4.2 of the Numbering Conditions:

"With the exception of 076 numbers used to provide emergency services, save", and insert "Save".

(f) Insert the following text as paragraph 2 of Section 4.3 "Freephone Numbers", RoU Conditions:

"An authorised undertaking shall only be granted the Rights of Use of 1800 Freephone Numbers if it is in receipt of a written order from an end-user for the number(s) being applied for together with the end-user's unique identifier. This identifier shall be the end-user's name, or suitable alternative such as account number or order number which enables ComReg to validate the authenticity of the assignment order."

(g) Insert the following text as paragraph 4 of Section 4.4 "Standard Rate Numbers" RoU Conditions:

"An authorised undertaking shall only be granted the Rights of Use of 0818 Standard Rate Numbers if it is in receipt of a written order from an end-user for the number(s) being applied for together with the end-user's unique identifier. This identifier shall be the end-user's name, or suitable alternative such as account number or order number which enables ComReg to validate the authenticity of the assignment order."

(h) Insert the following paragraphs to the RoU Conditions in Section 5.7 "Mobile Network Codes" of the Numbering Conditions, after paragraph 3:

"4. Terrestrial trunk radio Mobile Network Codes ((T)MNCs) shall be 4-digit short codes and their structure and use shall conform with ITU-T Recommendation E.218.

5. (T)MNCs shall be used only in TETRA networks.

6. A (T)MNC shall be inserted after the (T)MCC "272" as part of the Individual TETRA Subscriber Identity (ITSI)."

(i) Insert the following text at the end of paragraph 14(a) of Section 6.1 of the Numbering Conditions:

"Details of the application process for 1800 and 0818 numbers are set out in the Individual Number Assignment (INA) process manual which is available on request by emailing the ComReg numbering team at <u>numapps@comreg.ie</u>."

- (j) Insert the following text after "MVNOs," in paragraph 2 of Section 6.2 of the Numbering Conditions:
- "to OGCIO for Public Protection and Disaster Relief (PPDR) services,".
- **(k)** Insert the following text at the end of paragraph A.10.2 of Appendix 10 to the Numbering Conditions:

"Readers should be aware of the provisions relating to numbering (i.e. Articles 93 to 97) contained in the European Electronic Communications Code (Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code) ("the EECC"). The EECC, which came into force on 21 December 2020, has not yet been transposed in this jurisdiction. The numbering provisions in the EECC are for the most part identical to the numbering provisions in the existing EU Telecoms Framework."

(I) In Appendix 11 ("Definitions"), delete the definition of "Electronic Communication Service (ECS)" and replace with the following text:

"electronic communications service" (ECS)" means a service normally provided for remuneration via electronic communications networks, which encompasses, with the exception of services providing, or exercising editorial control over, content transmitted using electronic communications networks and services, the following types of services: (a) 'internet access service' as defined in point (2) of the second paragraph of Article 2 of Regulation (EU) 2015/2120; (b) interpersonal communications service; and (c) services consisting wholly or mainly in the conveyance of signals such as transmission services used for the provision of machine-to-machine services and for broadcasting;"

(m) In Appendix 11 ("Definitions"), insert the following text after the definition of "holder":

"Individual Number Assignment (INA)" means the ComReg system that incorporates use of the Fixed Number Portability (FNP) system to assign individual 1800 and 0818 NGNs.

(n) In Appendix 11 ("Definitions"), insert the following text after the definition of "Internet Access Number": "Interpersonal Communications Service" means a service normally provided for remuneration that enables direct interpersonal and interactive exchange of information via electronic communications networks between a finite number of persons, whereby the persons initiating or participating in the communication determine its recipient(s) and does not include services which enable interpersonal and interactive communication merely as a minor ancillary feature that is intrinsically linked to another service;

(o) In Appendix 11 ("Definitions"), insert the following text after the definition of "quarantined number":

"**Reseller**" means an authorised undertaking that enters into a contract with another authorised undertaking to receive number dependent services that the reseller uses to provide its own number dependent service to its end-users or to other authorised undertakings."

(p)In Appendix 9 ("Classes of Numbers"), insert the following text as the second sentence in the "Minimum numbering area (MNA)/Notes" column for the entry 089 Access/Area Code – Mobile Designation– 7&8 Subscriber No. Length:

"Please note: number range 089 011 0000 to 089 011 0999 is reserved for drama use."

(2) Decision D15/18, set out at Annex 1 of Commission Document 18/106 ("Review of Non-Geographic Numbers – Response to Consultation 18/65 and Decision"), shall be amended as and from 19 July 2021 as now set out:

(a) Part III of the NGN Decision D 15/18 is amended by the addition of the following new Section (iii) which provides as follows:

"(iii) The following numbers assigned to certain utility companies (as identified in the table below) shall be permitted to remain in operation until 30 November 2023:

Utility company the number is assigned to	Emergency contact number concerned
ESB Networks (ESBN)	1850 372 999
Gas Networks Ireland (GNI)	1850 20 50 50
	1850 42 77 47
	1850 211 615

Irish Water (IW)	1850 278 278
	1890 278 278"

(b) Part III of the NGN Decision D 15/18 is amended by the addition of the following new Section (iv) which provides as follows:

"(iv) Operators shall ensure the parallel running of 076 and 089 numbers for Public Protection and Disaster Relief (PPDR) services from 31 October 2021 until 31 December 2021."

(c) Part III of the NGN Decision D15/18 is amended by the following amendments at the beginning of Section (ii):

delete "With the exception of 076 numbers used to provide emergency services, save", and insert "Save".

(d) Part III of the NGN Decision D15/18 is amended by the following insertion at the end of Section (ii):

"Recorded announcements shall play for callers to 1850, 1890 or 076 numbers from midnight on 31 December 2021 until midnight on 9 January 2023. "

Part 4 – Effective Date

A revised version of the Numbering Conditions of Use and Application Process (currently Commission Document 15/136R2, version three), which shall be titled Numbering Conditions of Use and Application Process, ComReg 15/136R3, reflecting the decisions above, and the amendments to Decision D15/18, reflecting the decisions above, shall come into effect on 19th July 2021.

The third version of the "Numbering Conditions of Use and Application Process" (Commission Document No. 15/136R2) shall stand revoked from 19th July 2021(save that this document shall remain in full effect insofar as it may apply to any relevant matters as may occur prior to its revocation).

Signed

Robert Mourik

Commissioner

Commission for Communications Regulation

Annex: 2 Legal Framework and Statutory Objectives

- A 2.1ComReg manages the national numbering resource under the Communications Regulation Act 2002, as amended ("the 2002 Act") and the Common Regulatory Framework including the Framework Regulations 2011⁵⁹ and the Authorisation Regulations 2011⁶⁰.
- A 2.2ComReg's key objectives are to ensure the efficient management and use of numbers and to promote competition, to contribute to the development of the internal market, and to promote the interests of users⁶¹. ComReg must take all reasonable measures to achieve those objectives. These include measures to ensure no distortion or restriction of competition, to encourage efficient investment in infrastructure and to promote innovation, and to encourage the efficient use and effective management of numbers⁶². Measures must be are proportionate⁶³, must have regard to international developments⁶⁴, and should not favour particular technologies or services⁶⁵.
- A 2.3In pursuit of its objectives as outlined above ComReg must apply objective, transparent, non-discriminatory and proportionate regulatory principles. These include: promoting regulatory predictability; ensuring that there is no discrimination in the treatment of comparable undertakings; safeguarding competition; promoting efficient investment and innovation; taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State, and imposing ex ante regulatory obligations only where there is no effective and sustainable competition.

⁶³ Section 12(3) of the 2002 Act as amended.

An Coimisiún um Rialáil Cumarsáide

⁵⁹ S.I. No. 333 of 2011, the European Communities (Electronic Communications, Networks and Services) Framework Regulations 2011.

⁶⁰ S.I. No. 335 of 2011, the European Communities (Electronic Communications, Networks and Services) Authorisation Regulations 2011.

⁶¹ Section 12(1)(a) of the 2002 Act as amended.

⁶² Section 12(2)(a) of the 2002 Act as amended.

⁶⁴ Section 12(5) of the 2002 Act as amended.

⁶⁵ Section 12(6) of the 2002 Act as amended.

Commission for Communications Regulation

¹ Lárcheantar na nDugaí, Sráid na nGildeanna, BÁC 1, Éire, D01 E4X0.

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- A 2.4Regulation 4 of the Authorisation Regulations requires that any undertaking, intending to provide an electronic communications network or service, must first notify ComReg. The undertaking is thereby deemed authorised to provide the network or service concerned, subject to such conditions as may be specified by ComReg. Regulation 8 mandates that ComReg "shall ... specify conditions to be attached to a general authorisation only as are listed in Part A of the Schedule."
- A 2.5Regulations 13(1) and (2) of the Authorisation Regulations provide that ComReg may grant a right of use for any class or description of number to any authorised undertaking, through open, objective, transparent, non-discriminatory and proportionate procedures.
- A 2.6Regulations 14(1)-(3) of the Authorisation Regulations provide that ComReg shall specify non-discriminatory, proportionate and transparent conditions to be attached to such rights of use for numbers, though only as are listed in Part C of the Schedule to the Authorisation Regulations. There is a distinction between (a) statutory obligations relating to numbers which exist under primary or secondary legislation and (b) conditions attached to numbers which are imposed by ComReg pursuant to regulation 8 or 14 of the Authorisation Regulations.
- A 2.7The numbering conditions set out in sections 4 and 5 of the Numbering Conditions of Use and Application Process Document fall into two broad categories in that they are either "General Authorisation Conditions" or "Rights of Use Conditions". Most of the numbering conditions are attached to the General Authorisation. These conditions are created and imposed pursuant to Regulation 8 and Part A of the Schedule to the Authorisation Regulations. This category of condition has universal effect in that applies equally to all authorised undertakings or to such categories of authorised undertaking as may be specified. An authorised undertaking which uses a number, to which one more conditions under the General Authorisation have been attached, is required to comply with those conditions.
- A 2.8Some of the numbering conditions are attached to "rights of use for numbers" which ComReg has granted to individual undertakings. These conditions are created and imposed pursuant to Regulations 13 & 14 and Part C of the Schedule to the Authorisation Regulations. This category of condition does not have universal effect in that it applies only to the individual authorised undertaking which applied for and was granted the right of use to which the condition is attached. Only the individual authorised undertaking which applied for a number is required to comply with the conditions attached to that right of use.

- A 2.9Regulation 20(1) of the Authorisation Regulations requires ComReg to "ensure that all relevant information on rights, conditions, procedures, charges, fees and decisions concerning the general authorisation, rights of use for radio frequencies, rights of use for numbers and rights to install facilities is published and kept up to date in an appropriate manner so as to provide easy access to that information for all interested parties.
- A 2.10 Regulation 20(5) of the Framework Regulations requires ComReg to "ensure that adequate numbers and numbering ranges are provided for all publicly available electronic communications services ... in a manner that gives fair and equitable treatment to all undertakings providing publicly available electronic communications services."
- A 2.11 Regulation 15 of the Authorisation Regulations provides that ComReg may amend the rights, conditions and procedures concerning rights of use for numbers, in an objectively justified and proportionate manner. Except where such an amendment is minor in nature and agreed to, ComReg shall give notice of its intention to make any amendments and shall invite interested parties to make representations.
- A 2.12The updates to the Numbering Conditions contained in this Response to Consultation and Decision seek to reflect, where relevant, the provisions relating to numbering (i.e. Articles 93 and 94) contained in the European Electronic Communications Code (Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code) ("the EECC").
- A 2.13The EECC, which came into force on 21 December 2020, has not yet been transposed in this jurisdiction. The numbering provisions in the EECC are for the most part identical to the numbering provisions in the existing EU Telecoms Framework.